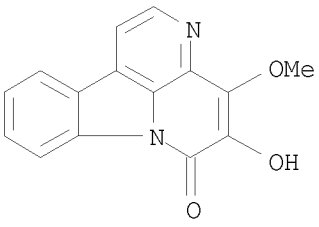
=> d ibib abs hitstr l4 1-102

L4 ANSWER 1 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2009:255073 CAPLUS
DOCUMENT NUMBER: 150:229413
TITLE: Protective effect of 4-methoxy-5-hydroxycanthin-6-one, a natural alkaloid, on dextran sulfate sodium-induced rat colitis
AUTHOR(S): Liu, Jun-Feng; Shao, Meng; Zhai, Da-Wei; Liu, Ke; Wu, Li-Jun
CORPORATE SOURCE: School of Traditional Chinese Medicine, Shenyang Pharmaceutical University, Liaoning, Peop. Rep. China
SOURCE: Planta Medica (2009), 75(2), 142-145
CODEN: PLMEAA; ISSN: 0032-0943
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In the present study, we evaluated the effect of 4-methoxy-5-hydroxycanthin-6-one (CAN), a natural alkaloid isolated from Picrasma quassioides (D.Don) Benn., on ulcerative colitis induced by dextran sulfate sodium (DSS) in rats in comparison with the pos. control drug, sulfasalazine (SASP). Given orally for several days, CAN significantly reduced the severity of colitis and mitigated changes in colon length, colon mucosa myeloperoxidase (MPO) activity, and the level of tumor necrosis factor-α (TNF-α) in serum. The effect of CAN was similar to that of SASP. These results suggest that CAN treatment might be an effective therapeutic intervention against ulcerative colitis induced by DSS.
IT 18110-86-6, 4-Methoxy-5-hydroxycanthin-6-one
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(protective effect of 4-methoxy-5-hydroxycanthin-6-one, a natural alkaloid, on dextran sulfate sodium-induced rat colitis)
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)

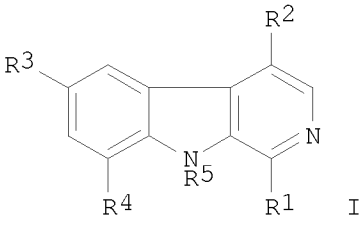


L4 ANSWER 2 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2009:216753 CAPLUS
TITLE: Preparation method and application of β-kabarin alkaloids from Picrasma quassioides
INVENTOR(S): Yao, Xinsheng; Gao, Hao; Zhao, Feng; Jiao, Weihua; Li, Chenyang; He, Fei; Dai, Yi; Zhou, Guangxiong; Ye, Wencai
PATENT ASSIGNEE(S): Jinan University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 17pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent

LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 101367802	A	20090218	CN 2008-10198870	20080927

PRIORITY APPLN. INFO.: CN 2008-10198870 20080927
GI

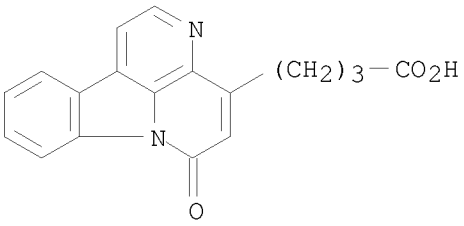


I

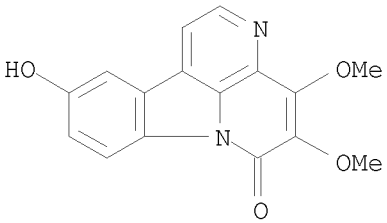
AB The title β- kabarin alkaloids have a formula I represented in the invention, and can be used as anti-inflammatory agents for preventing or treating inflammations caused by release of nitrogen monoxide, tumor necrosis factor-α, and interleukin-6 inflammation media.

IT 1131570-93-8 1131570-94-9
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation method and application of β-kabarin alkaloids from Picrasma quassioides)

RN 1131570-93-8 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



RN 1131570-94-9 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



L4 ANSWER 3 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2009:185786 CAPLUS
DOCUMENT NUMBER: 150:291092
TITLE: Quality control method for antiinflammatory traditional chinese medicine preparation
INVENTOR(S): Yao, Xinsheng; Gao, Hao; Zhao, Feng; Li, Chenyang; Wang, Guocai; Jiao, Weihua; Zhang, Long; He, Fei; Dai, Yi; Yao, Zhihong; Zhou, Guangxiong; Ye, Wencai
PATENT ASSIGNEE(S): Jinan University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 25pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

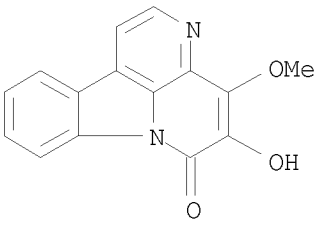
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 101361793	A	20090211	CN 2008-10198869	20080927

PRIORITY APPLN. INFO.: CN 2008-10198869 20080927

AB The title antiinflammatory traditional Chinese medicine preparation comprises: Andrographis paniculata, linearstripe rabdosia herb and Picrasma quassioides. The title quality control method comprises: standard fingerprint chromatogram construction, sample fingerprint chromatogram construction, and their comparison, and can confirm the antiinflammatory active ingredients of andrographolide, rosmarinic acid and nigakinone. The quality control method has the advantages of high repeatability, high stability, and easy operation.

IT 18110-86-6, Nigakinone
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(quality control method for antiinflammatory traditional chinese medicine preparation)

RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



L4 ANSWER 4 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:985522 CAPLUS
TITLE: Alkaloids from twigs and leaves of Picrasma quassioides
AUTHOR(S): Chen, Meng; Fan, Huaying; Dai, Shengjun; Liu, Ke
CORPORATE SOURCE: School of Pharmacy, Yantai University, Yantai, Shandong Province, 264005, Peop. Rep. China
SOURCE: Zhongcaoyao (2007), 38(6), 807-810
CODEN: CTYAD8; ISSN: 0253-2670
PUBLISHER: Zhongcaoyao Zazhi Bianjibu
DOCUMENT TYPE: Journal

LANGUAGE: Chinese

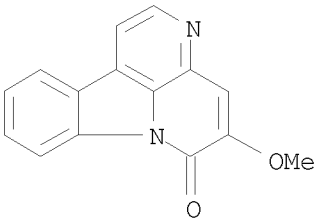
AB Compds. were isolated and purified by column chromatog. over Sephadex LH-20 and silica gel column. Their chemical structures were elucidated on the basis of physicochem. properties and spectral data. Sixteen alkaloids were isolated, purified and identified as: 5-methoxycanthin-6-one (I), 11-hydroxycanthin-6-one (II), canthin-6-one (III), 4,5-dimethoxycanthin-6-one (IV), 4-methoxy-5-hydroxycanthin-6-one (V), 3-methylcanthin-2,6-dione (VI), 1-formyl-4-methoxy-β-carboline (VII), 1-methoxy-β-carboline (VIII), 1-ethyl-4,8-dimethoxy-β-carboline (IX), 1-methoxycarbonyl-4-hydroxyl-β-carboline (X), 1-methyl-4-methoxy-β-carboline (XI), 1-ethoxycarbonyl-β-carboline (XII), 1-formyl-β-carboline (XIII), 1-methoxycarbonyl-β-carboline (XIV), 1-ethyl-4-methoxy-β-carboline (XV) and 1,2,3,4-tetrahydro-1,3,4-trioxo-β-carboline (XVI). Compound XI is separated from the natural plant for the first time, and compds. II, VIII and XV are separated from plants of Picrasma Bl. for the first time.

IT INDEXING IN PROGRESS

IT 15071-56-4, 5-Methoxycanthin-6-one 18110-86-6, 4-Methoxy-5-hydroxycanthin-6-one 18110-87-7, 4,5-Dimethoxycanthin-6-one
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(alkaloids from twigs and leaves of Picrasma quassioides)

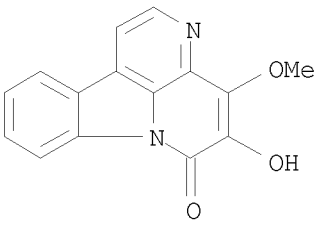
RN 15071-56-4 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



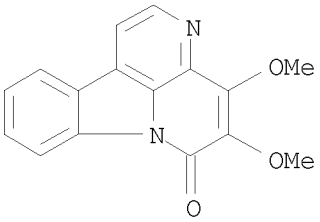
RN 18110-86-6 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)

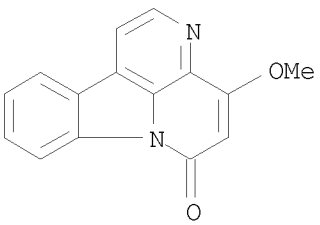


RN 18110-87-7 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



L4 ANSWER 5 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:947224 CAPLUS
DOCUMENT NUMBER: 150:162542
TITLE: Utilization of chitin and chitosan as chromatography supports for separation of alkaloids from dichloromethane extract of Simaba ferruginea
AUTHOR(S): Cunha, Georgia P.; Cechinel-Filho, Valdir; Martins, Domingos T. O.; Marcello, Cesar M.; Lima, Joaquim C. S.; Silva, Regilane M.; Noldin, Vania F.; Rodrigues, Clovis A.
CORPORATE SOURCE: Programa de Mestrado em Ciencias Farmaceuticas e Nucleo de Investigacoes Quimico-Farmaceuticas (NIQFAR), Universidade do Vale do Itajai (UNIVALI), Itajai, 88302-202, Brazil
SOURCE: Latin American Journal of Pharmacy (2008), 27(2), 255-257
CODEN: LAJPA9; ISSN: 0326-2383
PUBLISHER: Colegio de Farmaceuticos de la Provincia de Buenos Aires
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This work presents a comparative study of the efficacy of different chromatog. supports in the isolation of the canthin-6-one and 4-methoxycanthin-6-one, two bioactive alkaloids isolated from dichloromethane extract of Simaba ferruginea. When chitin was used as chromatog. support, the yield of the compds. were higher than silica gel, a traditional chromatog. support.
IT 5023-08-5, 4-Methoxycanthin-6-one
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(utilization of chitin and chitosan as chromatog. supports for separation of alkaloids from dichloromethane extract of Simaba ferruginea)
RN 5023-08-5 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-methoxy- (CA INDEX NAME)



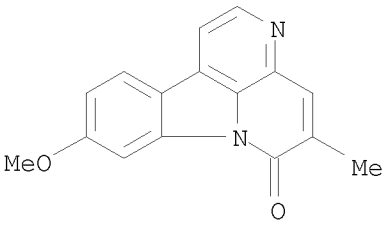
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:242705 CAPLUS
DOCUMENT NUMBER: 148:513277
TITLE: Triterpenoids and alkaloids from the roots of Peganum nigellastrum
AUTHOR(S): Ma, Zhongze; Hano, Yoshio; Qiu, Feng; Shao, Gang; Chen, Yingjie; Nomura, Taro
CORPORATE SOURCE: Bio-Organic and Natural Products Laboratory, McLean Hospital, Harvard Medical School, Belmont, MA, 02478, USA
SOURCE: Natural Product Communications (2008), 3(2), 149-154
CODEN: NPCACO; ISSN: 1934-578X
PUBLISHER: Natural Product Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

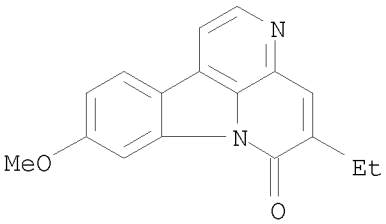
AB Four lupane-type triterpenoids (1-4) and 7 alkaloids (5-11) were isolated from the roots of P. nigellastrum. On the basis of spectroscopic and chemical evidence, the structures of the compds. were elucidated as 3α-hydroxy-27-trans-caffeoyloxylup-20(29)-en-28-oic acid Me ester (1), 3β-hydroxy-27-trans-caffeoyloxylup-20(29)-en-28-oic acid Me ester (2), 3α-acetoxy-27-trans-caffeoyloxylup-20(29)-en-28-oic acid Me ester (3), 3β-acetoxy-27-trans-caffeoyloxylup-20(29)-en-28-oic acid Me ester (4), luotonin C (5), luotonin D (6), harmine (7), harmol (8), harmaline (9), deoxyvasicinone (10) and vasicinone (11). Compds. 1, 3 and 4 are novel triterpenoids, and these pentacyclic triterpenoids were evaluated for their cytotoxicity against the androgen-sensitive LNCaP and androgen-independent PC-3 human prostate cancer cells.

IT 261948-33-8P, Luotonin C 261948-34-9P, Luotonin D
RL: ANT (Analyte); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)
(triterpenoids and alkaloids from the roots of Peganum nigellastrum)

RN 261948-33-8 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 9-methoxy-5-methyl- (CA INDEX NAME)



RN 261948-34-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-ethyl-9-methoxy- (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:52971 CAPLUS
DOCUMENT NUMBER: 148:198556
TITLE: Composition comprising Picrasma quassioides extract with antitumor effect, its preparation method and uses thereof
INVENTOR(S): Zhou, Yawei
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 14pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

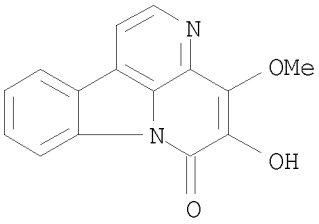
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 101099756	A	20080109	CN 2006-10090692	20060707

PRIORITY APPLN. INFO.: CN 2006-10090692 20060707

AB The title extract contains total alkaloids above 50% and has antitumor effect, wherein alkaloids are nigakinone, β-carboline alkaloids, canthin-6-one, etc. The extract is obtained by pulverizing Picrasma quassioides, reflux extracting or percolating with water, C1-C5 lower alc., or diluted hydrochloric acid to obtain extractive solution, mixing with styrene type skeleton resin, evaporating to remove solvent, loading on resin column by dry-method, removing impurities with water or C1-C5 lower alc., eluting with C1-C5 lower alc. water solution, vacuum concentrating, drying, and pulverizing to give an extract The extract may be prepared into antitumor prepns. for oral administration or injection, such as tablet, pill, capsule, soft capsule, granule, oral liquid and lyophilized powder for injection, in combination with adjuvants selected from starch, sucrose, lactose, sugar powder, mannitol, xylitol, polyethylene glycol, iso-Pr alc., tween-80, glycerin, propylene glycol, sodium CM-cellulose, dextrin, sodium chloride, vitamin C, cysteine, citric acid, sodium thiosulfate, sodium sulfite, and gelatin.

IT 18110-86-6, Nigakinone
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(composition comprising Picrasma quassioides extract with antitumor effect, its preparation method and uses thereof)

RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)

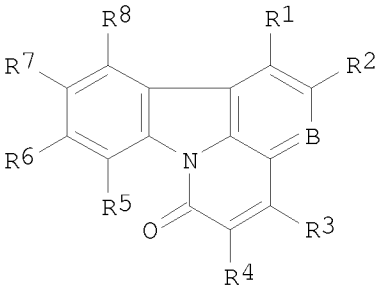


L4 ANSWER 8 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:1116269 CAPLUS
DOCUMENT NUMBER: 147:398627
TITLE: Use of canthin-6-one and its analogs for the treatment of pathologies linked to mycobacteria
INVENTOR(S): Fournet, Alain Robert Francois Maxime; Lagoutte, Delphine; Poupon, Erwan; Soriano-Agaton, Flor
PATENT ASSIGNEE(S): Institut de Recherche Pour le Developement, Fr.
SOURCE: PCT Int. Appl., 44pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007110500	A1	20071004	WO 2007-FR486	20070322
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
FR 2899229	A1	20071005	FR 2006-2677	20060328
FR 2899229	B1	20080530		
EP 1998770	A1	20081210	EP 2007-731175	20070322
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR				
IN 2008DN08917	A	20090327	IN 2008-DN8917	20081023

PRIORITY APPLN. INFO.: FR 2006-2677 A 20060328
WO 2007-FR486 W 20070322

OTHER SOURCE(S): MARPAT 147:398627
GI



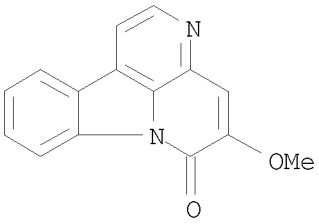
I

AB The invention discloses the use, of at least one of I (B = N, N-oxide, etc.; R1-R8 = H, alkyl, cycloalkyl, etc.) for the preparation of a medicament for the treatment or prevention of pathologies linked to, or caused by, mycobacteria. Compound preparation is included.

IT 15071-56-4, 5-Methoxycanthin-6-one 871131-76-9, 4-Aminocanthin-6-one 871131-77-0
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(canthinone and analogs for treatment of mycobacteria-associated diseases)

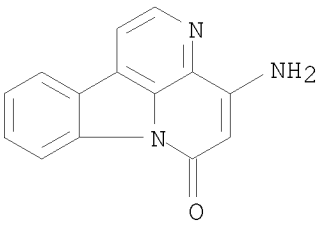
RN 15071-56-4 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



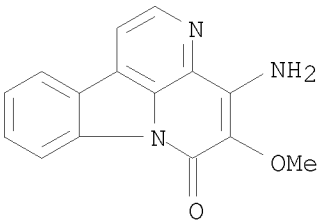
RN 871131-76-9 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-amino- (CA INDEX NAME)



RN 871131-77-0 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-amino-5-methoxy- (CA INDEX NAME)



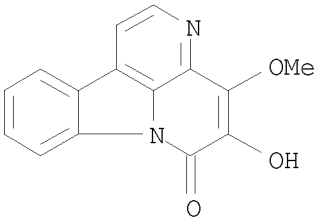
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:1088617 CAPLUS
DOCUMENT NUMBER: 147:433502
TITLE: Antiinflammatory and antibacterial composition comprising andrographolides and Picrasma alkaloids
INVENTOR(S): Wu, Wei; Shao, Meng; Zhai, Dawei; Liu, Junfeng; Teng, Houlei
PATENT ASSIGNEE(S): Hainan Shengke Natural Drugs Research Institute Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 30pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

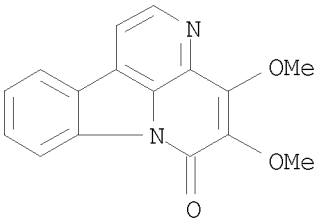
PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
CN 101036647	A	20070919	CN 2007-10135645		20070307
PRIORITY APPLN. INFO.:			CN 2006-10034349	A	20060313
			CN 2006-10034368	A	20060313

AB The title composition contains andrographolide (or 14-deoxy-11,12-didehydro-andrographolide) and Picrasma total alkaloids (or 4,5-dimethoxycanthin-6-one or 4-methoxy-5-hydroxycanthin-6-one) at a weight ratio of (1-40):1. The composition has high effective ingredient content, definite efficacy, and better antiinflammatory and antibacterial effects than using above andrographolide compound or canthinone compound alone.

IT 18110-86-6, 4-Methoxy-5-hydroxycanthin-6-one 18110-87-7, 4,5-Dimethoxycanthin-6-one
RL: ANT (Analyte); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(antiinflammatory and antibacterial composition comprising andrographolides and Picrasma alkaloids)
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



L4 ANSWER 10 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:1088615 CAPLUS
DOCUMENT NUMBER: 147:433500
TITLE: Use of alkaloids of Picrasma quassioides for preparing preinflammatory factor inhibitors
INVENTOR(S): Shao, Meng; Liu, Junfeng; Wu, Wei; Han, Fei; Zhai, Dawei; Teng, Houlei
PATENT ASSIGNEE(S): Hainan Shengke Natural Drugs Research Institute Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 13pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

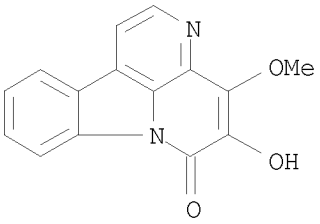
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 101036646	A	20070919	CN 2007-10088017	20070308
PRIORITY APPLN. INFO.:			CN 2006-10034348 A	20060313

AB The invention relates to the use of Picrasma total alkaloids or its active ingredient canthinone compound (4,5-dimethoxycanthin-6-one or 4-methoxy-5-hydroxycanthin-6-one) as preinflammatory factor inhibitor. The alkaloids are extracted from Picrasma quassioides and have inhibitor effects on preinflammatory factor inhibitors including TNF-α, IL-1α, IL-1β, IL-2, IL-6, IL-8, and IFN-γ. The alkaloids are used to produce medicaments as preinflammatory factor inhibitor for the treatment of systemic inflammatory response syndrome, septic shock, multiple organ dysfunction syndrome, rheumatoid arthritis, osteoarthritis, spinal arthritis, inflammatory bowel disease, heart failure, diabetes, systemic lupus erythematosus, scleroderma, sarcoidosis, dermatomyositis, psoriasis, acute myeloid leukemia, Parkinson's disease, presenile dementia, depression, Behcet's disease, chronic obstructive pulmonary

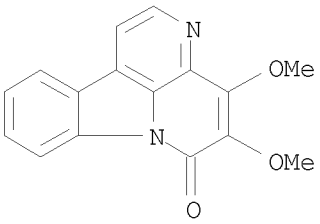
disease, asthma, acute pancreatitis, central nerve injury, respiratory viral infection, periodontal disease, bacterial infection, and multiple osteomyelitis.

IT 18110-86-6P, 4-Methoxy-5-hydroxycanthin-6-one 18110-87-7P, 4,5-Dimethoxycanthin-6-one
RL: ANT (Analyte); DMA (Drug mechanism of action); PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(use of alkaloids of Picrasma quassioides for preparing preinflammatory factor inhibitors)

RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



L4 ANSWER 11 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:644976 CAPLUS
DOCUMENT NUMBER: 147:108968
TITLE: SPE-LC/MS/MS determination of 4,5-dimethoxy-canthin-one in plasma
AUTHOR(S): Li, Hui; Zhang, Yuan; Lin, Zhexuan; Luo, Wenhong
CORPORATE SOURCE: The Central Laboratory, Medical College, Shantou University, Shantou, 515041, Peop. Rep. China
SOURCE: Yaowu Fenxi Zazhi (2006), 26(4), 525-527
CODEN: YFZADL; ISSN: 0254-1793
PUBLISHER: Yaowu Fenxi Zazhi Bianji Weiyuanhui
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

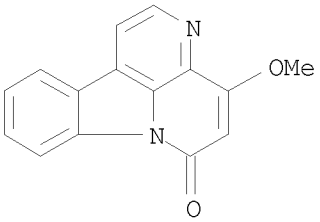
AB A LC/MS/MS method for quant. determination of 4,5-dimethoxy-canthin-one in plasma was established. Plasma samples were prepared by C18 solid phase extraction (SPE). LC was performed using mobile phase methanol-0.01 mol/L-1 ammonium acetate (80:20), flow rate 0.2 mL/min-1; and chromatog. column was Waters

Symmetry C18 (2.1 mm + 50 mm, 3.5 μm). MS/MS electrospray (ESI) was operated with multiple reaction monitoring (MRM) detection mode, pos. ion, m/z 281.4→237.1. Linear range for the calibration curve was between 5-100 ng/mL-1 (r = 0.9999). Spike recoveries were between 98.3-107% with within-day and day-to-day RSDs less than 5.1%. The method is sensitive, rapid and reliable for the quant. determination of 4,5-dimethoxy-canthin-one in plasma.

IT 5023-08-5
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(SPE-LC/MS/MS determination of 4,5-dimethoxy-canthin-one in plasma)

RN 5023-08-5 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-methoxy- (CA INDEX NAME)



L4 ANSWER 12 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:639128 CAPLUS

DOCUMENT NUMBER: 148:49835

TITLE: Two new alkaloidal glycosides from the root bark of Ailanthus altissima

AUTHOR(S): Zhang, L.-P.; Wang, J.-Y.; Wang, W.; Cui, Y.-X.; Cheng, D.-L.

CORPORATE SOURCE: College of Chemistry and Chemical Engineering, State Key Laboratory of Applied Organic Chemistry, Lanzhou University, Lanzhou, 730000, Peop. Rep. China

SOURCE: Journal of Asian Natural Products Research (2007), 9(3), 253-259
CODEN: JANRFI; ISSN: 1028-6020

PUBLISHER: Taylor & Francis Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

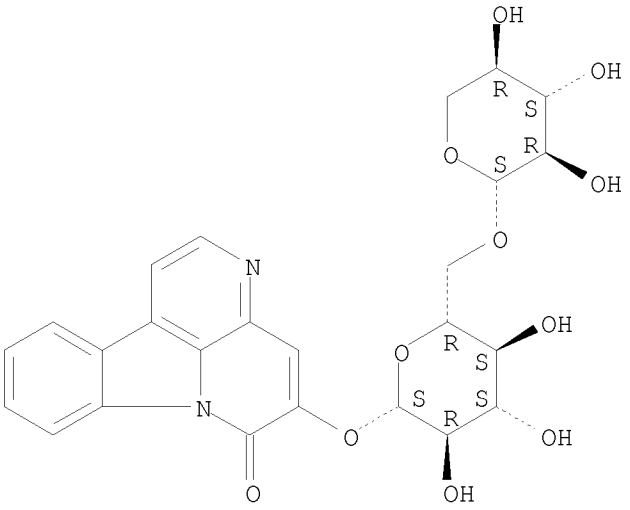
AB Two new alkaloidal glycosides, canthin-6-one-5-O-β-D-xylopyranosyl-(1→6)-β-D-glucopyranoside (1) and canthin-6-one-1-O-β-D-xylopyranosyl-(1→6)-β-D-glucopyranoside (2) named ailantcanthinosides A and B, were isolated from the root bark of Ailanthus altissima. Their structures were elucidated by one-and two-dimensional 1H NMR, 13C NMR, FAB-MS, HRESI-MS spectra and chemical methods.

IT 960002-00-0P, Ailantcanthinoside A
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(two new alkaloidal glycosides from the root bark of Ailanthus altissima)

RN 960002-00-0 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-[(6-O-β-D-xylopyranosyl-β-D-glucopyranosyl)oxy]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:15323 CAPLUS
DOCUMENT NUMBER: 146:414325
TITLE: Effects of canthin-6-one alkaloids from Zanthoxylum chiloperone on Trypanosoma cruzi-infected mice
AUTHOR(S): Ferreira, Maria Elena; Nakayama, Hector; Rojas de Arias, Antonieta; Schinini, Alicia; de Bilbao, Ninfa Vera; Serna, Elva; Lagoutte, Delphine; Soriano-Agaton, Flor; Poupon, Erwan; Hocquemiller, Reynald; Fournet, Alain
CORPORATE SOURCE: Department of Tropical Medicine, Casilla de Correo, Instituto de Investigaciones en Ciencias de la Salud Asuncion, Universidad Nacional de Asuncion, 2511, Parag.
SOURCE: Journal of Ethnopharmacology (2007), 109(2), 258-263
CODEN: JOETD7; ISSN: 0378-8741
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

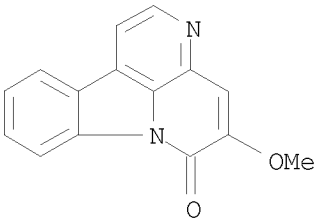
AB Canthin-6-one (1), isolated from Zanthoxylum chiloperone (Rutaceae), possesses a broad spectrum of antifungal and leishmanicidal activities. In this study, we have examined the antiparasitic effects of canthin-6-one (1), 5-methoxycanthin-6-one (2), canthin-6-one N-oxide (3), as well as that of the total alkaloids of Zanthoxylum chiloperone stem bark, in Balb/c mice infected either acutely or chronically with Trypanosoma cruzi. The compds. were administered orally or s.c. at 5 mg/kg/day for 2 wk, whereas the alkaloidal extract was given at 50 mg/kg/day for 2 wk. The antiparasitic activity was compared with that of benznidazole given at 50 mg/kg/day for 2 wk. In the case of acute infection, parasitemia was significantly reduced following oral treatment with canthin-6-one (1). Moreover, the total alkaloids of Zanthoxylum chiloperone stem bark led to high levels of parasitol. clearance. Seventy days post-infection, the serol. response in the acute model was significantly different between oral canthin-6-one (1) and benznidazole-treated mice. Chronic model of the disease showed that both canthin-6-one (1) and the alkaloidal extract at the above dosage induced 80-100% animal survival compared to untreated

controls. These results indicate that canthin-6-one (1) exhibits trypanocidal activity in vivo in the mouse model of acute or chronic infection. This is the first demonstration of anti-Trypanosoma cruzi activity for a member of this chemical group (canthinones). Considering the very low toxicity of canthin-6-one (1), our results suggest that long-term oral treatment with this natural product could prove advantageous compared to the current chemotherapy of Chagas disease.

IT 15071-56-4, 5-Methoxycanthin-6-one
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(effects of canthin-6-one alkaloids from Zanthoxylum chiloperone on Trypanosoma cruzi-infected mice)

RN 15071-56-4 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1225787 CAPLUS

DOCUMENT NUMBER: 144:225850

TITLE: Anti-inflammatory evaluation and phytochemical characterization of some plants of the Zanthoxylum genus

AUTHOR(S): Marquez, Lucia; Aguero, Juan; Hernandez, Ivones; Garrido, Gabino; Martinez, Ioanna; Dieguez, Rodrigo; Prieto, Sylvia; Rivas, Yahelis; Molina-Torres, Jorge; Curini, Massimo; Delgado, Rene

CORPORATE SOURCE: Laboratorio de Farmacologia, Departamento de Investigaciones Biomedicas, Centro de Quimica Farmaceutica, Ciudad de La Habana, A.P. 16042, Cuba

SOURCE: Acta Farmaceutica Bonaerense (2005), 24(3), 325-330
CODEN: AFBODJ; ISSN: 0326-2383

PUBLISHER: Colegio de Farmaceuticos de la Provincia de Buenos Aires

DOCUMENT TYPE: Journal

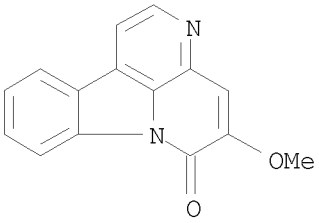
LANGUAGE: English

AB This study examines the anti-inflammatory activity of some species of Zanthoxylum genus. We evaluated 4 ethanolic exts. from stem bark of Zanthoxylum elephantiasis Macfd., Z. fagara (L.) Sargent., Z. martinicense (Lam.) DC, and from fruits of Z. coriaceum A. Rich. species. We used phorbol myristate acetate (PMA) and arachidonic acid (AA)-induced mouse ear edema as models of acute inflammation. The exts. of Z. coriaceum and Z. fagara (1-3 mg/ear) were active against the AA and PMA application on mouse edema. Z. elephantiasis extract (0.5-2 mg/ear) exhibited an anti-inflammatory effect in AA application. In the PMA model it was also effective, at all assayed doses. Ethanolic extract of Z. martinicense (1-3 mg/ear) was active on AA induced edema however; it was not effective in the PMA model. Considering the relevant anti-inflammatory effect

exhibited by Z. elephantiasis extract we decided to analyze the chemical composition of extract by gas chromatog. coupled to mass spectrometry (GC-MS). Among others, 3 alkaloids, 1 coumarin, 1 lignan, 3 amides and 5 steroids were found in analyzed fractions.

IT 15071-56-4P, 5-Methoxycanthin-6-one
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(5-metoxicanthin-6-one was observed in acetone extract of Zanthoxylum elephantiasis stem bark by gas chromatog. coupled to mass spectrometry)

RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



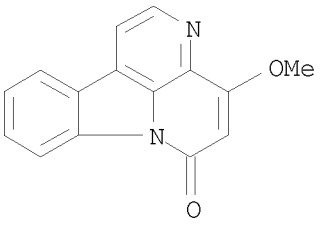
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:1206269 CAPLUS
DOCUMENT NUMBER: 144:397803
TITLE: Phytochemical and antiulcerogenic properties of rhizomes from Simaba ferruginea St. Hill. (Simaroubaceae)
AUTHOR(S): Noldin, Vania Floriani; Martins, Domingos Tabajara de Oliveira; Marcello, Cesar Marcos; Lima, Joaquim Corsino da Silva; Delle Monache, Franco; Cechinel Filho, Valdir
CORPORATE SOURCE: Programa de Mestrado em Ciencias Farmaceuticas e Nucleo de Investigacoes Quimico-Farmaceuticas (NIQFAR), Universidade do Vale do Itajai (UNIVALI), Itajai, 88302-202, Brazil
SOURCE: Zeitschrift fuer Naturforschung, C: Journal of Biosciences (2005), 60(9/10), 701-706
CODEN: ZNCBDA; ISSN: 0939-5075
PUBLISHER: Verlag der Zeitschrift fuer Naturforschung
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Simaba ferruginea (Simaroubaceae) is a Brazilian medicinal plant used in traditional medicine to treat several ailments, including gastric ulcers, fever, diarrhea, and dolorous and inflammatory processes. This study examines the chemical composition and antiulcerogenic effects of rhizomes from this plant. Bioassay-guided fractionation led to the isolation of 2 bioactive indole alkaloids called canthin-6-one (1) and 4-methoxycanthin-6-one (2). The alkaloid fraction and both alkaloids demonstrated potent antiulcerogenic effects when evaluated in gastric lesion-induced animals, as well as significant antinociceptive activity in mice. These results confirm and justify the popular use of S. ferruginea against gastric ulcers and dolorous processes.

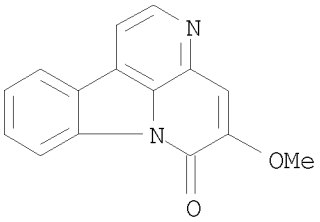
IT 5023-08-5P, 4-Methoxycanthin-6-one

RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(phytochem., and antiulcer and analgesic properties of rhizomes from Simaba ferruginea)
RN 5023-08-5 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-methoxy- (CA INDEX NAME)

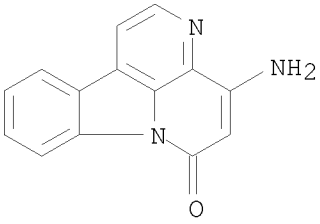


REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

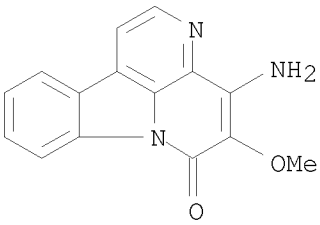
L4 ANSWER 16 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:1146741 CAPLUS
DOCUMENT NUMBER: 144:48177
TITLE: Extraction, Hemisynthesis, and Synthesis of Canthin-6-one Analogues. Evaluation of Their Antifungal Activities
AUTHOR(S): Soriano-Agaton, Flor; Lagoutte, Delphine; Poupon, Erwan; Roblot, Francois; Fournet, Alain; Gantier, Jean-Charles; Hocquemiller, Reynald
CORPORATE SOURCE: Laboratoire de Pharmacognosie Associe au CNRS (UMR 8076 BioCIS) and Laboratoire de Biologie et Controle des Organismes Parasites Centre d'Etudes Pharmaceutiques, Universite Paris-Sud 11, Chatenay-Malabry, 92296, Fr.
SOURCE: Journal of Natural Products (2005), 68(11), 1581-1587
CODEN: JNPRDF; ISSN: 0163-3864
PUBLISHER: American Chemical Society-American Society of Pharmacognosy
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 144:48177
AB Zanthoxylum chiloperone var. angustifolium was investigated. Alkaloids 1-3 from the canthin-6-one series were characterized. Derivs. 7-28 were prepared by hemisynthesis or total synthesis. All compds. were tested for in vitro antifungal activities against five pathogenic fungal strains. Analogs of canthin-6-one did not show better antifungal activities.
IT 15071-56-4, 5-Methoxycanthin-6-one
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(extraction, hemisynthesis, and synthesis of canthin-6-one analogs in Zanthoxylum)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



IT 871131-76-9P, 4-Aminocanthin-6-one
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(extraction, hemisynthesis, and synthesis of canthin-6-one analogs in Zanthoxylum)
RN 871131-76-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-amino- (CA INDEX NAME)



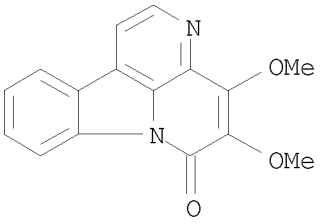
IT 871131-77-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(extraction, hemisynthesis, and synthesis of canthin-6-one analogs in Zanthoxylum)
RN 871131-77-0 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-amino-5-methoxy- (CA INDEX NAME)



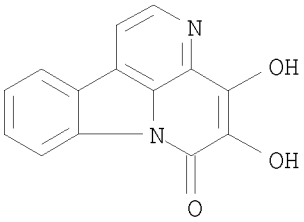
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:481411 CAPLUS
DOCUMENT NUMBER: 143:474935
TITLE: Cytotoxic constituents of the twigs of Simarouba glauca collected from a plot in southern Florida
AUTHOR(S): Rivero-Cruz, J. Fausto; Lezutekong, Raphael; Lobo-Echeverri, Tatiana; Ito, Aiko; Mi, Qiuwen; Chai,

Hee-Byung; Soejarto, Djaja D.; Cordell, Geoffrey A.; Pezzuto, John M.; Swanson, Steven M.; Morelli, Ivano; Kinghorn, A. Douglas
CORPORATE SOURCE: Program for Collaborative Research in the Pharmaceutical Sciences and Departments of Medical Chemistry and Pharmacognosy, College of Pharmacy, University of Illinois at Chicago, Chicago, IL, 60612, USA
SOURCE: Phytotherapy Research (2005), 19(2), 136-140
CODEN: PHYREH; ISSN: 0951-418X
PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Activity-guided fractionation of a chloroform-soluble extract of Simarouba glauca twigs collected from a plot in southern Florida, and monitored with a human epidermoid (KB) tumor cell line, afforded six canthin-6-one type alkaloid derivs., canthin-6-one (1), 2-methoxycanthin-6-one (2), 9-methoxycanthin-6-one (3), 2-hydroxycanthin-6-one (4), 4,5-dimethoxycanthin-6-one (5) and 4,5-dihydroxycanthin-6-one (6), a limonoid, melianodiol (7), an acyclic squalene-type triterpenoid, 14-deacetyleurylene (8), two coumarins, scopoletin (9) and fraxidin (10), and two triglycerides, triolein (11) and trilinolein (12). Among these isolates, compds. 1-4, 7 and 8 exhibited cytotoxic activity against several human cancer cell lines. 14-Deacetyleurylene (8) was selectively active against the Lu1 human lung cancer cell line, but was inactive in an in vivo hollow fiber assay using this same cell type.
IT 18110-87-7P, 4,5-Dimethoxycanthin-6-one 18110-89-9P, 4,5-Dihydroxycanthin-6-one
RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(cytotoxic constituents of the twigs of Simarouba glauca collected from a plot in southern Florida)
RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)

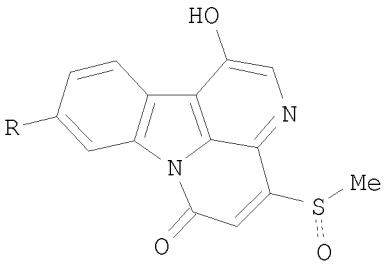


RN 18110-89-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dihydroxy- (CA INDEX NAME)



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:1101365 CAPLUS
DOCUMENT NUMBER: 142:173145
TITLE: An unusual series of thiomethylated canthin-6-ones from the North American Mushroom Boletus curtisii
AUTHOR(S): Broeckelmann, Martin G.; Dasenbrock, Johannes; Steffan, Bert; Steglich, Wolfgang; Wang, Yuekui; Raabe, Gerhard; Fleischhauer, Joerg
CORPORATE SOURCE: Department Chemie, Ludwig-Maximilians-Universitaet Muenchen, Munich, 81377, Germany
SOURCE: European Journal of Organic Chemistry (2004), (23), 4856-4863
CODEN: EJOCFK; ISSN: 1434-193X
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



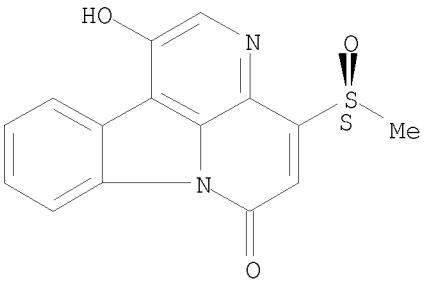
I R=OH
II R=H

AB A unique set of thiomethylated canthin-6-one derivs. was isolated from Boletus curtisii. The bright yellow color of this mushroom is caused by two optically active canthin-6-one sulfoxides for which the names curtisin (I) and 9-deoxycurtisin (II) are proposed. The structures of the new compds. were established by MS and NMR methods and the absolute configuration of the sulfoxides determined by quantum chemical calcns. This is the first occurrence of canthin-6-one alkaloids outside of higher plants. The chemotaxonomic implications of these findings are discussed.

IT 832712-28-4P, 9-Deoxycurtisin
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(thiomethylated canthinones from Boletus curtisii)
RN 832712-28-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one,

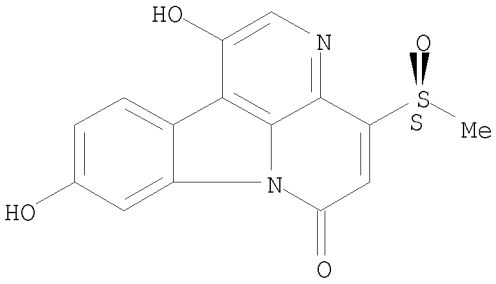
1-hydroxy-4-[(S)-methylsulfinyl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

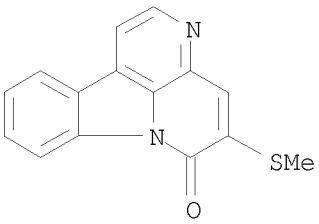


IT 832721-72-9P, Curtisine
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); RACT (Reactant or reagent)
(thiomethylated canthinones from Boletus curtisii)
RN 832721-72-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 1,9-dihydroxy-4-[(S)-methylsulfinyl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

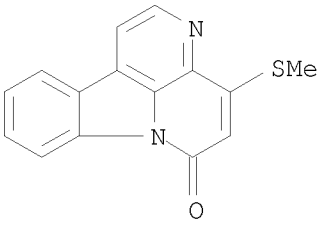


IT 157770-30-4P 500299-14-9P
RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(thiomethylated canthinones from Boletus curtisii)
RN 157770-30-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(methylthio)- (CA INDEX NAME)



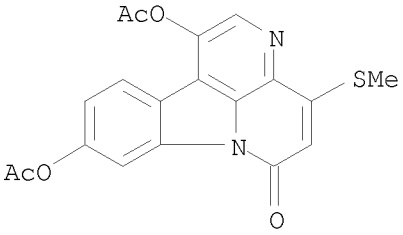
RN 500299-14-9 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-(methylthio)- (CA INDEX NAME)



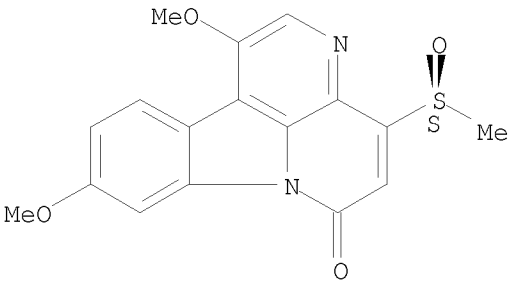
IT 832712-26-2P, O,O-Diacetyl-S-deoxycurtisin 832712-33-1P, O,O-Dimethylcurtisin 832712-35-3P, O,O-Bis(4-bromobenzoyl)curtisin
RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(thiomethylated canthinones from Boletus curtisii)

RN 832712-26-2 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 1,9-bis(acetyloxy)-4-(methylthio)- (CA INDEX NAME)



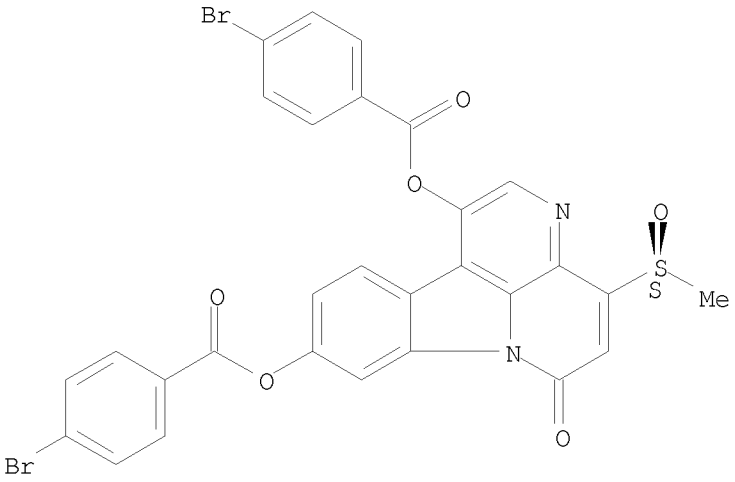
RN 832712-33-1 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 1,9-dimethoxy-4-[(S)-methylsulfinyl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 832712-35-3 CAPLUS
CN Benzoic acid, 4-bromo-, 4-[(S)-methylsulfinyl]-6-oxo-6H-indolo[3,2,1-de][1,5]naphthyridine-1,9-diyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



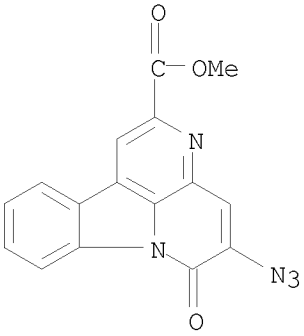
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:734307 CAPLUS
DOCUMENT NUMBER: 141:350063
TITLE: Synthesis of some fused β-carbolines including the first example of the pyrrolo[3,2-c]-β-carboline system
AUTHOR(S): Condie, Glenn C.; Bergman, Jan
CORPORATE SOURCE: Unit for Organic Chemistry, CNT, Department of Biosciences at Novum, Karolinska Institute, Huddinge, SE-141 57, Swed.
SOURCE: Journal of Heterocyclic Chemistry (2004), 41(4), 531-540
CODEN: JHTCAD; ISSN: 0022-152X
PUBLISHER: HeteroCorporation
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:350063

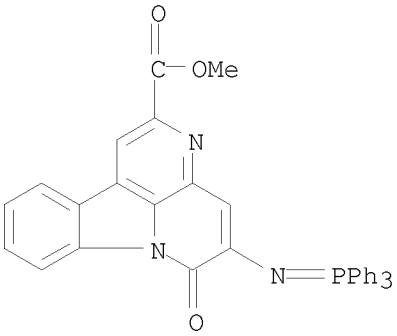
AB Condensation of 1-methyl-β-carboline-3-carbaldehyde with Et azidoacetate and subsequent thermolysis of the resulting azidopropenoate was used to [c] annulate a pyrrole ring onto the β-carboline moiety, thus producing the first example of the pyrrolo[3,2-c]-β-carboline ring system. The latter ring system results from cyclization at the C-4 carbon, whereas cyclization at the N-2 nitrogen atom also occurs to form a pyrazolo[3,2-c]-β-carboline ring system. Condensation of β-carboline-1-carbaldehyde with Et azidoacetate produced a non-isolable intermediate, which immediately underwent cyclization; however, in this case cyclization occurred via attack at the ester and the azide remained intact. The resulting 5-azidocanthin-6-one was transformed to the first examples of 5-aminocanthin-6-ones. β-Carboline-1,3-dicarbaldehyde failed to give an acceptable reaction with Et azidoacetate, but did undergo selective condensation with di-Me acetylenedicarboxylate at the C-1 carbaldehyde with concomitant cyclization to form a highly functionalized 2-formylcanthine derivative

IT 777062-77-8P 777062-78-9P 777062-79-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of fused β-carbolines)
RN 777062-77-8 CAPLUS

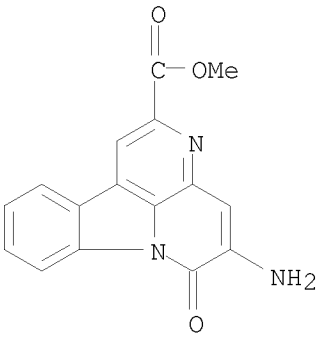
CN 6H-Indolo[3,2,1-de][1,5]naphthyridine-2-carboxylic acid, 5-azido-6-oxo-, methyl ester (CA INDEX NAME)



RN 777062-78-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridine-2-carboxylic acid, 6-oxo-5-[(triphenylphosphoranylidene)amino]-, methyl ester (CA INDEX NAME)

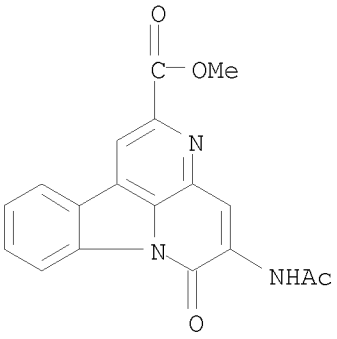


RN 777062-79-0 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridine-2-carboxylic acid, 5-amino-6-oxo-, methyl ester (CA INDEX NAME)



IT 777062-80-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of fused β-carbolines)

RN 777062-80-3 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridine-2-carboxylic acid, 5-(acetylamino)-6-oxo-, methyl ester (CA INDEX NAME)



REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 20 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:432755 CAPLUS
DOCUMENT NUMBER: 140:412295
TITLE: Use of canthin-6-one and plant extracts containing it and its derivatives for the treatment of the Chagas' disease
INVENTOR(S): Ferreira, Marie Elena; Fournet, Alain; Rojas De Arias, Antonieta; Hocquemiller, Reynald
PATENT ASSIGNEE(S): Institut De Recherche Pour Le Developpement I.R.D., Fr.; Universite Nationale D'Ascuncion
SOURCE: Fr. Demande, 18 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2847474	A1	20040528	FR 2002-14729	20021125
FR 2847474	B1	20060324		
WO 2004050092	A1	20040617	WO 2003-FR3459	20031124
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003294057	A1	20040623	AU 2003-294057	20031124
EP 1569642	A1	20050907	EP 2003-789474	20031124
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003016441	A	20051011	BR 2003-16441	20031124
US 20070149461	A1	20070628	US 2006-535430	20060222

PRIORITY APPLN. INFO.: FR 2002-14729 A 20021125
WO 2003-FR3459 W 20031124

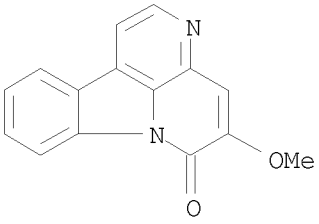
OTHER SOURCE(S): MARPAT 140:412295

AB Use of plant exts. containing canthin-6-one, in the form of an extract of Zanthoxylum chiloperone angustifolium, and some of its derivs. for the manufacture of a drug intended for the treatment of trypanosomiasis, in particular treatment of Chagas' disease, is disclosed. Canthin-6-one and 5-methoxycanthin-6-one were extracted from Z. chiloperone. Efficacy of canthin-6-one in the treatment of guinea pigs infected. with Trypanosoma cruzi is shown.

IT 15071-56-4, 5-Methoxy-canthin-6-one
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(use of canthinone and plant exts. containing it and its derivs. for treatment of Chagas' disease)

RN 15071-56-4 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:50455 CAPLUS

DOCUMENT NUMBER: 140:314482

TITLE: Cytotoxic and antimalarial constituents from the roots of Eurycoma longifolia

AUTHOR(S): Kuo, Ping-Chung; Damu, Amooru G.; Lee, Kuo-Hsiung; Wu, Tian-Shung

CORPORATE SOURCE: Department of Chemistry, National Cheng Kung University, Tainan, 701, Taiwan

SOURCE: Bioorganic & Medicinal Chemistry (2004), 12(3), 537-544
CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

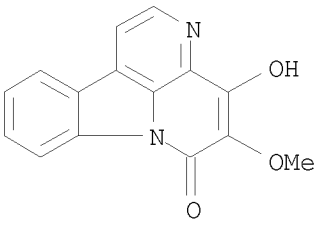
AB Sixty-five compds. were isolated from the roots of Eurycoma longifolia and characterized by comprehensive analyses of their 1D and 2D NMR, and mass spectral data. Among these isolates, four quassinoid diterpenoids were reported from natural sources for the first time, namely eurycomalide A (1), eurycomalide B (2), 13β,21-dihydroxyeurycomanol (3), and 5α,14β,15β-trihydroxyklaineanone (4). Screening of cytotoxicity, anti-HIV and antimalarial activity of these isolated compds. was also furnished by in vitro assays. Compds. 12, 13, 17, 18, 36, 38, 59, and 62 demonstrated strong cytotoxicity toward human lung cancer (A-549) cell lines, however, 12, 13, 17, 38, 57, 58, and 59 exhibited strong cytotoxicity toward human breast cancer (MCF-7) cell lines. Compds. 57 and 58 displayed potent antimalarial activity against the resistant Plasmodium falciparum. The thorough studies on the stereochem.

of the different quassinoid diterpenoids provide a clear reference to the scientists who are interested on this field.

IT 101219-61-8
RL: PAC (Pharmacological activity); BIOL (Biological study)
(cytotoxic and antimalarial constituents from roots of Eurycoma longifolia)

RN 101219-61-8 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-hydroxy-5-methoxy- (CA INDEX NAME)



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 22 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:753390 CAPLUS

DOCUMENT NUMBER: 139:361632

TITLE: Cytotoxic and antimalarial β-carboline alkaloids from the roots of Eurycoma longifolia

AUTHOR(S): Kuo, Ping-Chung; Shi, Li-Shian; Damu, Amooru G.; Su, Chung-Ren; Huang, Chieh-Hung; Ke, Chih-Huang; Wu, Jin-Bin; Lin, Ai-Jeng; Bastow, Kenneth F.; Lee, Kuo-Hsiung; Wu, Tian-Shung

CORPORATE SOURCE: Department of Chemistry, National Cheng Kung University, Tainan, 701, Taiwan

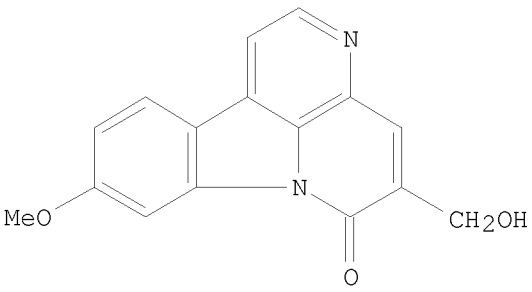
SOURCE: Journal of Natural Products (2003), 66(10), 1324-1327
CODEN: JNPRDF; ISSN: 0163-3864

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



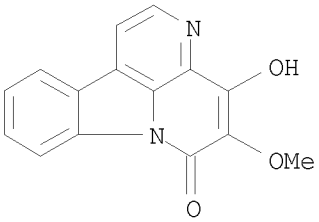
I

AB Three new β-carboline alkaloids [n-pentyl β-carboline-1-propionate, 5-hydroxymethyl-9-methoxycanthin-6-one (I), and 1-hydroxy-9-methoxycanthin-6-one] and 19 known β-carbolines were isolated from the roots of Eurycoma longifolia. The new structures were

determined by comprehensive analyses of their 1D and 2D NMR and mass spectral data and by chemical transformation. These compds. were screened for in vitro cytotoxic and antimalarial activities, and 9-methoxycanthin-6-one and canthin-6-one demonstrated significant cytotoxicity against human lung cancer (A-549) and human breast cancer (MCF-7) cell lines.

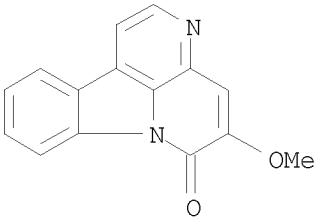
IT 101219-61-8, Picrasidine Q
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); BIOL (Biological study)
(cytotoxic alkaloid from Eurycoma longifolia)

RN 101219-61-8 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-hydroxy-5-methoxy- (CA INDEX NAME)

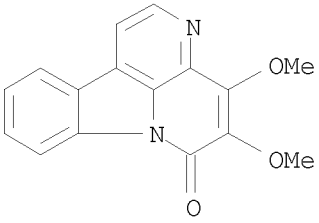


IT 15071-56-4, 5-Methoxycanthin-6-one 18110-87-7, 4,5-Dimethoxycanthin-6-one 89915-37-7, 5-Hydroxymethylcanthin-6-one
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(from Eurycoma longifolia)

RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)

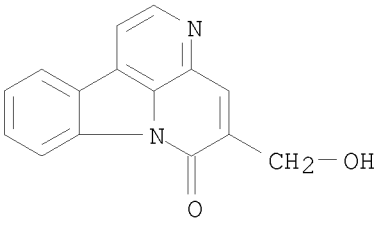


RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)

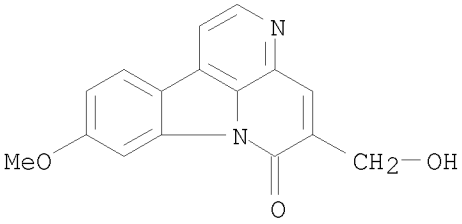


RN 89915-37-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(hydroxymethyl)- (CA INDEX

NAME)

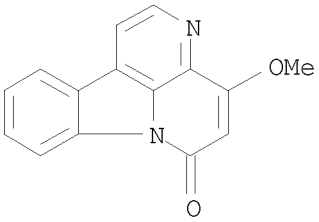


IT 622408-84-8P
RL: NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(isolation from Eurycoma longifolia roots and structure of)
RN 622408-84-8 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(hydroxymethyl)-9-methoxy- (CA INDEX NAME)

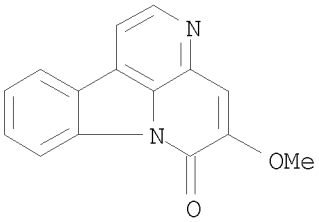


REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 23 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:679560 CAPLUS
DOCUMENT NUMBER: 140:2829
TITLE: Study on chemical constituents from Drymaria diandra BL
AUTHOR(S): Yang, Xue-qiong; Rong, Huang; Bao, Zhi-juan; Ding, Zhong-tao
CORPORATE SOURCE: Department of Chemistry, Yunnan University, Kunming, 650091, Peop. Rep. China
SOURCE: Yunnan Daxue Xuebao, Ziran Kexueban (2003), 25(4), 358-360
CODEN: YDXKES; ISSN: 0258-7971
PUBLISHER: Yunnan Daxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Four compds. were isolated from Drymaria diandra BL. They were identified as 3-acetyloleanolic acid, cordatanine, β-sitosterol and β-daucosterol by spectral anal., chemical and phys. consts.
IT 5023-08-5, Cordatanine
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(constituents from Drymaria diandra)
RN 5023-08-5 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-methoxy- (CA INDEX NAME)

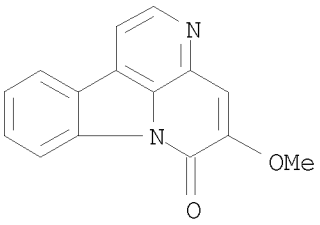


L4 ANSWER 24 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:577194 CAPLUS
DOCUMENT NUMBER: 139:227158
TITLE: Antifungal compounds from Zanthoxylum chiloperone var. angustifolium
AUTHOR(S): Thouvenel, Celine; Gantier, Jean-Charles; Duret, Philippe; Fourneau, Christophe; Hocquemiller, Reynald; Ferreira, Maria-Elena; Rojas de Arias, Antonieta; Fournet, Alain
CORPORATE SOURCE: Faculte de Pharmacie, Laboratoire de Pharmacognosie UPRES-A 8076 CNRS (BIOCIS), Chatenay-Malabry, 92296, Fr.
SOURCE: Phytotherapy Research (2003), 17(6), 678-680
CODEN: PHYREH; ISSN: 0951-418X
PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An alkaloidal extract of the stem barks of Zanthoxylum chiloperone var. angustifolium exhibited antifungal activity against Candida albicans, Aspergillus fumigates and Trichophyton mentagrophytes var. interdigitale using a TLC bioautog. method. Bioassay-guided fractionation of this extract resulted in the isolation of two active compds. identified as canthin-6-one and 5-methoxycanthin-6-one. Canthin-6-one exhibited a broad spectrum of activities against Aspergillus fumigates, A. niger, A. terreus, Candida albicans, C. tropicalis, C. glabrata, Cryptococcus neoformans, Geotrichum candidum, Saccharomyces cerevisiae, Trichosporon beigelii, Trichosporon cutaneum and Trichophyton mentagrophytes var. interdigitale with MICs values between 5.3 and 46 μmol/L. 5-Methoxy-canthin-6-one was active against only Trichophyton mentagrophytes var. interdigitale with a MIC value of 12.3 μmol/L.
IT 15071-56-4, 5-Methoxycanthin-6-one
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antifungal compds. from Zanthoxylum chiloperone angustifolium)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

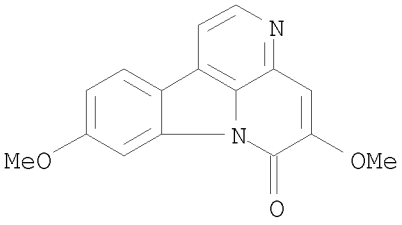
L4 ANSWER 25 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:27796 CAPLUS
DOCUMENT NUMBER: 138:300452
TITLE: 5-methoxycanthin-6-one from Leitneria floridana (Simaroubaceae)
AUTHOR(S): Readel, Karin E.; Seigler, David S.; Young, David A.
CORPORATE SOURCE: Department of Plant Biology, University of Illinois, Urbana, IL, 61801, USA
SOURCE: Biochemical Systematics and Ecology (2003), 31(2), 167-170
CODEN: BSECBU; ISSN: 0305-1978
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Corkwood, Leitneria floridana, a shrub found in low, wet areas of the southeastern United States, has been considered to belong to the monotypic family Leitneriaceae, a family formerly considered to be of uncertain taxonomic affinities, but is now generally conceded to be part of the Simaroubaceae. Methanolic extraction of the wood yields a series of alkaloids (based on the Dragendorff test), of which the major component is 5-methoxycanthin-6-one. This compound was purified by thin layer chromatog. and the structure elucidated by 1H-NMR, EIMS and exact mass of the parent ion. Because indole alkaloids of the canthin-6-one type have only been isolated from the Rutaceae and Simaroubaceae, the presence of 5-methoxycanthin-6-one in Leitneria floridana further supports placement of this engimatic species in or near the Simaroubaceae.
IT 15071-56-4, 5-Methoxycanthin-6-one
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(5-methoxycanthin-6-one from Leitneria floridana (Simaroubaceae))
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

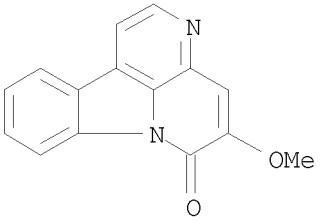
L4 ANSWER 26 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:531066 CAPLUS
DOCUMENT NUMBER: 138:69881
TITLE: Canthin-6-one alkaloids from callus cultures of Eurycoma longifolia
AUTHOR(S): Kanchanapoom, Tripetch; Chumsri, Phannipha; Sonchai, Suttikan; Kasai, Ryoji; Yamasaki, Kazuo
CORPORATE SOURCE: Institute of Pharmaceutical Sciences, Hiroshima University, Hiroshima, 734-8551, Japan
SOURCE: Natural Medicines (Tokyo, Japan) (2002), 56(2), 55-58
CODEN: NMEDEO; ISSN: 1340-3443

PUBLISHER: Japanese Society of Pharmacognosy
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB Four alkaloids, 9-methoxycanthin-6-one, 9-hydroxycanthin-6-one, 5,9-dimethoxycanthin-6-one and 9-methoxycanthin-6-one N-oxide were isolated from the callus cultures of Eurycoma longifolia (Simaroubaceae). Their structures were based on analyses of spectroscopic data.
IT 155861-54-4P
RL: PUR (Purification or recovery); PREP (Preparation)
(canthin-6-one alkaloids from callus cultures of Eurycoma longifolia)
RN 155861-54-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5,9-dimethoxy- (CA INDEX NAME)



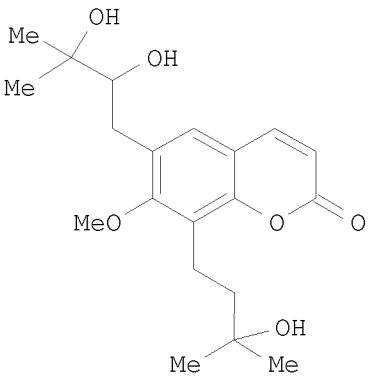
L4 ANSWER 27 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:339345 CAPLUS
DOCUMENT NUMBER: 138:280752
TITLE: Leishmanicidal activity of two canthin-6-one alkaloids, two major constituents of Zanthoxylum chiloperone var. angustifolium
AUTHOR(S): Ferreira, M. E.; Rojas de Arias, A.; Torres de Ortiz, S.; Inchausti, A.; Nakayama, H.; Thouvenel, C.; Hocquemiller, R.; Fournet, A.
CORPORATE SOURCE: Department of Tropical Medicine, Institute de Investigaciones en Ciencias de la Salud, Asuncion, 2511, Parag.
SOURCE: Journal of Ethnopharmacology (2002), 80(2-3), 199-202
CODEN: JOETD7; ISSN: 0378-8741
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The crude alkaloidal extract of Zanthoxylum chiloperone stem bark exhibited in vitro activity against various strains of Leishmania ssp. at 100 μg/mL. Two active major constituents were isolated and identified as canthin-6-one and 5-methoxycanthin-6-one. The effect of these compds. was also tested in an in vivo assay using BALB/c mice infected with Leishmania amazonensis. The mice were treated for 5 wk postinfection with these alkaloids by oral (14 days) or intralesional route (4 days) at 10 mg/kg daily. The reference drug, N-methylglucamine antimonate was administered by s.c. injections at 100 mg/kg for 10 days. Intralesional administration of canthin-6-one reduced the parasite burden but not significantly when it was compared with the untreated group, while the reference drug reduced by 91% the parasite loads in the lesion.
IT 15071-56-4P, 5-Methoxycanthin-6-one
RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(leishmanicidal activity of two canthin-6-one alkaloids, two major

constituents from stem bark of Zanthoxylum chiloperone var. angustifolium)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

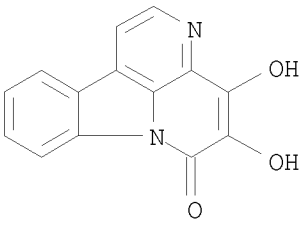
L4 ANSWER 28 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2001:561534 CAPLUS
DOCUMENT NUMBER: 135:285757
TITLE: A new diprenyl coumarin and alkaloids from the bark of Zanthoxylum dimorphophyllum (Rutaceae)
AUTHOR(S): Mai, Huong Doan Thi; Van-Dufat, Hanh Trinh; Michel, Sylvie; Tillequin, Francois; Bastien, David; Sevenet, Thierry
CORPORATE SOURCE: Laboratoire de Pharmacognosie de l'Universite Rene Descartes, U.M.R./C.N.R.S. No 8638, Faculte des Sciences Pharmaceutiques et Biologiques, Paris, 75006, Fr.
SOURCE: Zeitschrift fuer Naturforschung, C: Journal of Biosciences (2001), 56(7/8), 492-494
CODEN: ZNCBDA; ISSN: 0939-5075
PUBLISHER: Verlag der Zeitschrift fuer Naturforschung
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

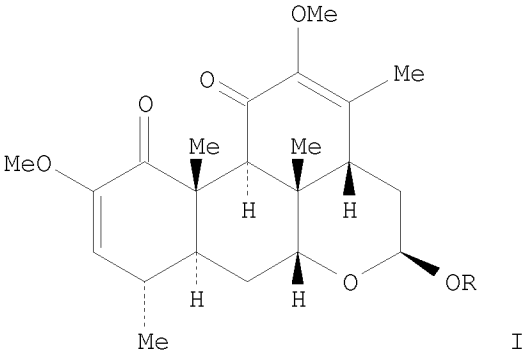
AB The alkaloids chelerythrine, norchelerythrine, oxyavicine, canthine-6-one, 4,5-dihydrocanthin-6-one, and γ-fagarine were isolated from Zanthoxylum dimorphophyllum bark, together with two coumarins, scoparone and dimoxylin (I). This latter is a novel compound whose structure was

elucidated on the basis of its spectral data.
IT 18110-89-9
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(new diprenyl coumarin and alkaloids from bark of Zanthoxylum dimorphophyllum (Rutaceae))
RN 18110-89-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dihydroxy- (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 29 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2001:262317 CAPLUS
DOCUMENT NUMBER: 135:31245
TITLE: Quassinoids and other constituents from Picrasma crenata
AUTHOR(S): Krebs, H. C.; Schilling, P. J.; Wartchow, R.; Bolte, M.
CORPORATE SOURCE: Zentrum fur Lebensmittelwissenschaften, ZA fur Chemische Analytik und Endokrinologie, Hannover, D-30173, Germany
SOURCE: Zeitschrift fuer Naturforschung, B: Chemical Sciences (2001), 56(3), 315-318
CODEN: ZNBSEN; ISSN: 0932-0776
PUBLISHER: Verlag der Zeitschrift fuer Naturforschung
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



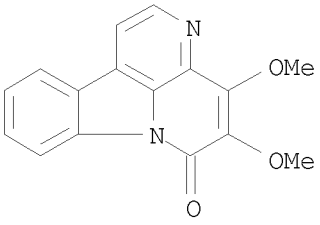
I

AB Two new, 16-β-O-methylneoquassin and 16-β-O-ethylneoquassin (I)

(R = Me, Et), and four known quassinoids have been isolated together with coniferyl aldehyde, coniferin, cantin-6-one, 4,5-dimethoxycantin-6-one and (+)-neo-olivil from the wood of Picrasma crenata. Their structures were determined on basis of spectroscopic and X-ray anal.

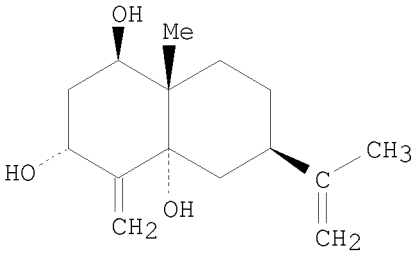
IT 18110-87-7P
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(isolation and structure of diterpene quassinoids and other constituents from Picrasma crenata)

RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 30 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2000:792843 CAPLUS
DOCUMENT NUMBER: 134:68789
TITLE: Anti-HIV agents 45 and antitumor agents 205. Two new sesquiterpenes, leitneridanins A and B, and the cytotoxic and anti-HIV principles from Leitneria floridana
AUTHOR(S): Xu, Zhihong; Chang, Fang-Rong; Wang, Hui-Kang; Kashiwada, Yoshiki; McPhail, Andrew T.; Bastow, Kenneth F.; Tachibana, Yoko; Cosentino, Mark; Lee, Kuo-Hsiung
CORPORATE SOURCE: Natural Products Laboratory Division of Medicinal Chemistry and Natural Products School of Pharmacy, University of North Carolina, Chapel Hill, NC, 27599, USA
SOURCE: Journal of Natural Products (2000), 63(12), 1712-1715
CODEN: JNPRDF; ISSN: 0163-3864
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



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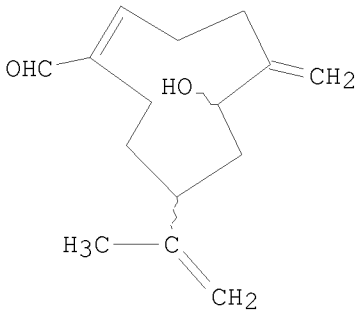


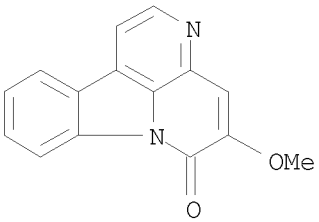
II

AB Two new sesquiterpenes, leitneridanin A (I) and leitneridanin B (II), and seven known compds., lirioresinol B, (-)-pinoresinal, (+)-lariciresinol, quassimarin (III), simalikalactone D (IV), 1-methoxycanthinone (V), and 5-methoxycanthinone (VI), were isolated from Leitneria floridana. Their structures were identified on the basis of spectral data. In vitro biol. evaluation showed that V is a potent anti-HIV agent (EC50 0.26 μg/mL; TI >39) and that III-VI suppressed the growth of a panel of human tumor cell lines (KB, A-549, HCT-8, CAKI-1, MCF-7, and SK-MEL-2). Compds. III and IV were significantly active, with ED50 values in the range of 0.26-0.012 μg/mL.

IT 15071-56-4
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(cytotoxic and anti-HIV principles from Leitneria floridana)

RN 15071-56-4 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 31 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:309787 CAPLUS

DOCUMENT NUMBER: 133:56044

TITLE: Alkaloids and phenylpropanoids from Peganum nigellastrum

AUTHOR(S): Ma, Zhong-Ze; Hano, Yoshio; Nomura, Taro; Chen, Ying-Jie

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Toho University, Chiba, 274-8510, Japan

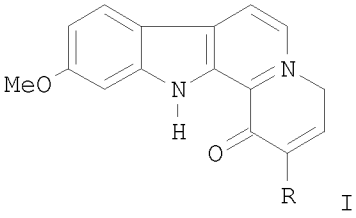
SOURCE: Phytochemistry (2000), 53(8), 1075-1078
CODEN: PYTCAS; ISSN: 0031-9422

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



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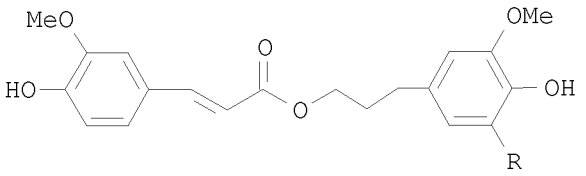


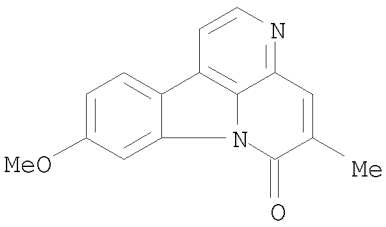
II

AB Two canthin-6-one alkaloids, luotonins C (I) (R = Me) and D I (R = Et), and two phenylpropanoids, dihydrosinapyl ferulate (II) (R = OMe) and dihydroconiferyl ferulate II (R = H), were isolated from the aerial parts of Peganum nigellastrum along with four known alkaloids, harmine, 3-phenylquinoline, 3-(4-hydroxyphenyl)quinoline and 3-(1H-indol-3-yl)quinoline. Their structures were elucidated by spectroscopic techniques. The structures of I were also confirmed by chemical synthesis.

IT 261948-33-8P, Luotonine C 261948-34-9P, Luotonine D
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(isolation and structure of alkaloids and phenylpropanoids from Peganum nigellastrum)

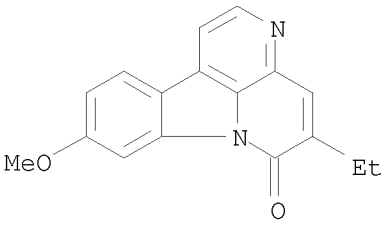
RN 261948-33-8 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 9-methoxy-5-methyl- (CA INDEX NAME)



RN 261948-34-9 CAPLUS

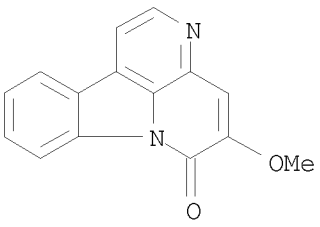
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-ethyl-9-methoxy- (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS

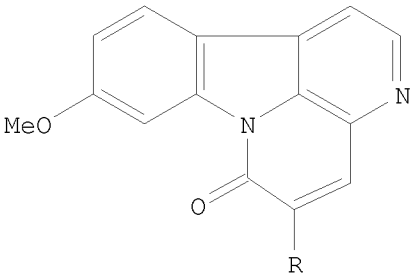
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 32 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2000:160542 CAPLUS
DOCUMENT NUMBER: 132:234342
TITLE: Constituents of Zanthoxylum rugosum St.-Hil & Tul
AUTHOR(S): Diehl, Eliana Elisabeth; Von Poser, Gilsane Lino; Henriques, Amelia Teresinha
CORPORATE SOURCE: Curso de Pos Graduacao em Ciencias Farmaceuticas, UFRGS, Porto Alegre, 90.610-000, Brazil
SOURCE: Biochemical Systematics and Ecology (2000), 28(3), 275-277
CODEN: BSECBU; ISSN: 0305-1978
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The isolation of anisocoumarin H, 5-methoxcycanthin-6-one, canthin-6-one, trans-avicennol, trans-avicennin, chelerythrine, and skimmianine from dried leaves and roots of Zanthoxylum rugosum was described. The occurrence of the classes of these compds. was compared with that in other species of Z. The metabolites showed a relationship to other taxa such as Z. elephantiasis.
IT 15071-56-4, 5-Methoxycanthin-6-one
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(constituents of Zanthoxylum rugosum)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 33 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:776537 CAPLUS
DOCUMENT NUMBER: 132:234276
TITLE: The structures of new alkaloid components from Peganum nigellastrum
AUTHOR(S): Ma, Zhong-Ze; Hano, Yoshio; Nomura, Taro; Chen, Ying-Jie
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Toho University, Japan
SOURCE: Tennen Yuki Kagobutsu Toronkai Koen Yoshishu (1999), 41st, 547-552
CODEN: TYKYDS
PUBLISHER: Nippon Kagakkai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
GI



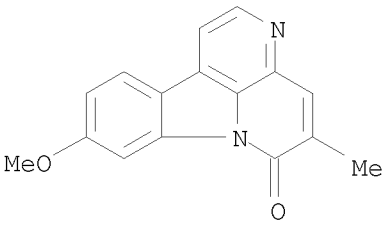
I

AB Six new alkaloids were isolated from the aerial parts of Peganum nigellastrum along with twelve known alkaloids. The structures of the new compds., named luotonin A, B, E, C (I, R = Me), D (I, R = Et), and F, were confirmed by spectroscopic evidence and chemical synthesis. Luotonins A, B, and E were unique alkaloids having a pyrroloquinazolinoquinoline skeleton. Luotonins C and D were the first canthin-6-one derivs. isolated from the genus Peganum. Luotonin F, 3-[3(H)-quinazolinone]carbonyl-quinoline, was also a unique alkaloid of the title plant. Total syntheses of all of the compds. were achieved by convenient ways. Luotonin A was synthesized by 3 steps through vasicinone as a key intermediate (Ma, Z. et al., 1999). Canthin-6-one derivs. (I, R = Me, Et) were synthesized by a biomimetic way from harmine coexisting with these alkaloids in the same source. Luotonin F was also synthesized by 6 steps from 3-formylquinoline as a starting material. These new compound 1-6 were tested cytotoxic activity against P-388 cells. Among them, luotonin A (1) was the most potent inhibitor (IC50 1.8 pg/mL).

IT 261948-33-8P, Luotonin C 261948-34-9P, Luotonin D
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(isolation, biomimetic synthesis and structure of cytotoxic alkaloid from Peganum nigellastrum)

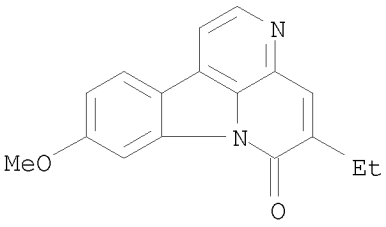
RN 261948-33-8 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 9-methoxy-5-methyl- (CA INDEX NAME)

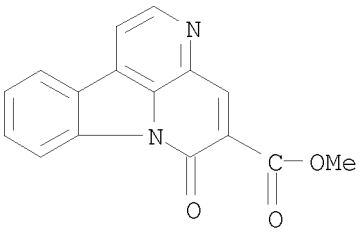


RN 261948-34-9 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-ethyl-9-methoxy- (CA INDEX NAME)



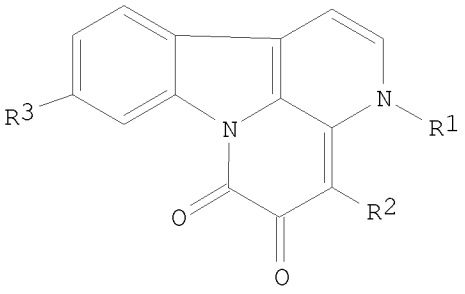
L4 ANSWER 34 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:625510 CAPLUS
DOCUMENT NUMBER: 131:351519
TITLE: Single electron transfer induced total synthesis of canthin-6-one
AUTHOR(S): Rossler, Ulrich; Blechert, Siegfried; Steckhan, Eberhard
CORPORATE SOURCE: Institut fur Organische Chemie, Technische Universitat Berlin, Berlin, D-10623, Germany
SOURCE: Tetrahedron Letters (1999), 40(39), 7075-7078
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 131:351519
AB The cytotoxic alkaloid canthin-6-one was synthesized from harmalane in a short sequence (six steps) with good overall yield (18%) using a single electron transfer (SET) induced radical cationic hetero [4+2] cycloaddn. as high yielding key step.
IT 55854-61-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(single electron transfer induced total synthesis of canthin-6-one)
RN 55854-61-0 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridine-5-carboxylic acid, 6-oxo-, methyl ester (CA INDEX NAME)



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

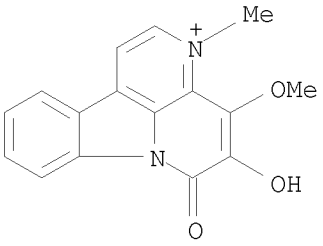
L4 ANSWER 35 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:124837 CAPLUS
DOCUMENT NUMBER: 130:223472
TITLE: Synthesis and antitumor activity of canthin-5,6-dione derivatives
AUTHOR(S): Koike, Kazuo; Yoshino, Hiroshi; Nikaido, Tamotsu
CORPORATE SOURCE: Department of Pharmacognosy, School of Pharmaceutical

Sciences, Toho University, Chiba, 274-8510, Japan
SOURCE: Heterocycles (1999), 51(2), 315-323
CODEN: HTCYAM; ISSN: 0385-5414
PUBLISHER: Japan Institute of Heterocyclic Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 130:223472
GI



I

AB Syntheses of canthin-5,6-dione derivs. (I) (R1 = Me, Et, Bu; R2, R3 = H, OMe) have been achieved via one step route starting from their resp. β-carbolines. I showed antitumor activities against P-388 murine leukemia cells and PC-6 human lung carcinoma cells.
IT 221149-85-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (crystal structure; synthesis and antitumor activity of canthin-5,6-dione derivs.)
RN 221149-85-5 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridinium, 5-hydroxy-4-methoxy-3-methyl-6-oxo-, chloride (1:1) (CA INDEX NAME)



● Cl^-

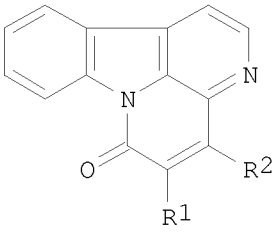
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 36 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1995:668446 CAPLUS
DOCUMENT NUMBER: 123:92870
ORIGINAL REFERENCE NO.: 123:16393a,16396a
TITLE: canthin-6-ones as hair growth stimulants and hair cosmetics containing them

INVENTOR(S): Shaku, Masao; Kuroda, Hideo; Ooba, Ai
PATENT ASSIGNEE(S): Pola Kasei Kogyo Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07112919	A	19950502	JP 1993-258549	19931015

PRIORITY APPLN. INFO.: JP 1993-258549 19931015
OTHER SOURCE(S): MARPAT 123:92870
GI

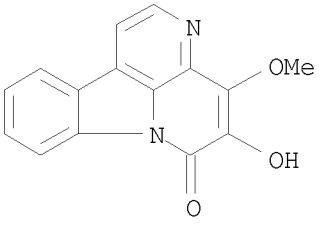


I

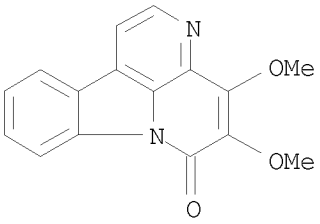
AB Hair cosmetics contain canthin-6-ones I (R1, R2, R3 = H, OH, OMe) as hair growth stimulants. Dry root (10 kg) of Peucedanum praeruptorum were extracted with a mixture of 20 L H2O and 20 L EtOH by heating at 105° for 4 h and the extract was fractionated to give canthin-6-one (II) 1.14, 4,5-dimethoxycanthin-6-one 1.36, and 5-hydroxy-4-methoxycanthin-6-one 1.09 g. II stimulated the growth of hair and prevented the graying of hair in mice.

IT 18110-86-6P, 5-Hydroxy-4-methoxycanthin-6-one 18110-87-7P , 4,5-Dimethoxycanthin-6-one
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hair growth stimulants containing canthin-6-ones)

RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)

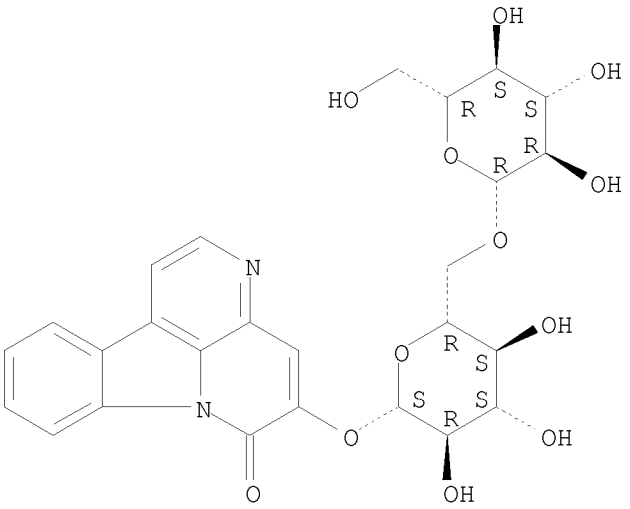


L4 ANSWER 37 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1995:282536 CAPLUS
DOCUMENT NUMBER: 122:128592
ORIGINAL REFERENCE NO.: 122:23875a,23878a
TITLE: Indonesian medicinal plants. VIII. Chemical structures of three new triterpenoids, bruceajavanin A, dihydrobruceajavanin A, and bruceajavanin B, and a new alkaloidal glycoside, bruceacanthinoside, from the stems of Brucea javanica.
AUTHOR(S): Kitagawa, Isao; Mahmud, Taifo; Simanjuntak, Partomuan; Hori, Kazuyuki; Uji, Tahan; Shibuya, Hirotaka
CORPORATE SOURCE: Fac. Pharmaceutical Sci., Osaka Univ., Suita, 565, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1994), 42(7), 1416-21
CODEN: CPBTAL; ISSN: 0009-2363
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Three new apotirucallane-type triterpenoids named bruceajavanin A (I; R = Acetyl), dihydrobruceajavanin A (1,2-dihydro derivative of bruceajavanin A), and bruceajavanin B I (R = Methyl), and a novel β-carboline alkaloidal glycoside named bruceacanthinoside (II) were isolated from the stems of B. javanica, a traditional medicine used to treat malaria. Their chemical structures have been elucidated on the bases of their chemical and physicochem. properties. I (R = Acetyl), 1,2-dihydro I (R = Acetyl) and II inhibited the growth of a cultured Plasmodium falciparum chloroquine-resistant strain.
IT 159194-91-9P, Bruceacanthinoside
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(antimalarials from Brucea javanica)
RN 159194-91-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-[(6-O-β-D-glucopyranosyl-β-D-glucopyranosyl)oxy]- (CA INDEX NAME)

Absolute stereochemistry.



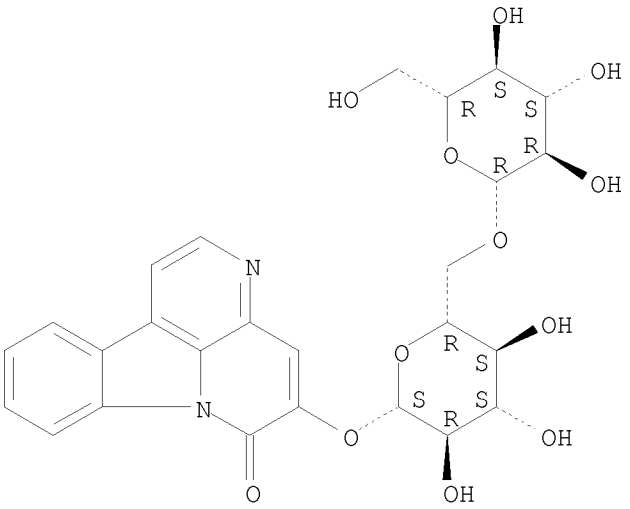
L4 ANSWER 38 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1994:697153 CAPLUS
DOCUMENT NUMBER: 121:297153
ORIGINAL REFERENCE NO.: 121:54283a,54286a
TITLE: Canthin-6-one alkaloids from Brucea mollis var. tonkinensis
AUTHOR(S): Ouyang, Yishan; Koike, Kazuo; Ohmoto, Taichi
CORPORATE SOURCE: Sch. Pharmaceutical Sci., Toho Univ., Funabashi, 274, Japan
SOURCE: Phytochemistry (1994), 36(6), 1543-6
CODEN: PYTCAS; ISSN: 0031-9422
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

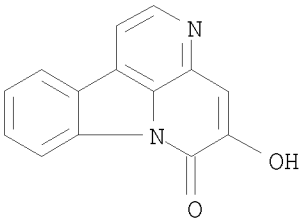
AB Three new alkaloids were isolated from the root-wood of Brucea mollis var. tonkinensis collected in China. Their structures were determined to be I (bruceolline A), II (bruceolline B), and III (11-hydroxycanthin-6-one-N-oxide) by chemical and spectral methods. In addition, two known alkaloids, canthin-6-one and canthin-6-one-N-oxide, were isolated.

IT 159194-91-9P, Bruceolline B
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(isolation and structure of canthin-6-one alkaloids from Brucea mollis var. tonkinensis)
RN 159194-91-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-[(6-O-β-D-glucopyranosyl-β-D-glucopyranosyl)oxy]- (CA INDEX NAME)

Absolute stereochemistry.



IT 64118-73-6P, 5-Hydroxycanthin-6-one
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 64118-73-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy- (CA INDEX NAME)



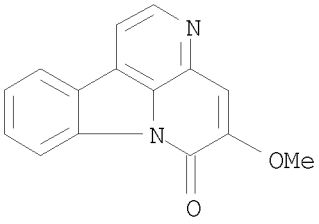
L4 ANSWER 39 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1994:651344 CAPLUS
DOCUMENT NUMBER: 121:251344
ORIGINAL REFERENCE NO.: 121:45799a,45802a
TITLE: The effect of plant growth regulators on the production of canthin-6-one alkaloids by Brucea javanica cell suspension cultures
AUTHOR(S): Liu, Karin C. S.; Roberts, Margaret F.; Homeyer, B. Curt; Yang, Shi Lin; Phillipson, J. David
CORPORATE SOURCE: Coll. Med., Natl. Taiwan Univ., Taipai, 10018, Taiwan
SOURCE: Phytochemistry (1994), 37(2), 421-4
CODEN: PYTCAS; ISSN: 0031-9422
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cell suspension cultures of Brucea javanica were grown in media with a variety of plant growth regulators. Although quassinoid production could not be initiated, high yields of canthin-6-one alkaloids were found. The plant growth regulator regimes used, IAA + KIN, 2,4-D + KIN, NAA + KIN, NAA + BAP, 2,4-D + BAP and IAA + BAP affected cell growth and overall alkaloid production Variations in the yields of the individual alkaloids were also observed The most efficient production of canthin-6-one, 11-hydroxycanthin-6-one, 11-methoxycanthin-6-one and

5-methoxycanthin-6-one was found in media containing NAA + BAP.

IT 15071-56-4, 5-Methoxycanthin-6-one
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(effect of plant growth regulators on production of canthin-6-one alkaloids by Brucea javanica cell suspension cultures)

RN 15071-56-4 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



L4 ANSWER 40 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1994:621589 CAPLUS

DOCUMENT NUMBER: 121:221589

ORIGINAL REFERENCE NO.: 121:40089a,40092a

TITLE: Gastric antiulcer components from the woods of Picrasma quassioides (Simaroubaceae)

AUTHOR(S): Niiho, Yujiro; Mitsunaga, Katsuyoshi; Koike, Kazuo; Ohmoto, Taichi

CORPORATE SOURCE: Tsukuba Research Institute, Ohta's Isan Co. Ltd., Ibaraki, 300-12, Japan

SOURCE: Natural Medicines (Tokyo, Japan) (1994), 48(2), 116-21
CODEN: NMEDEO; ISSN: 1340-3443

DOCUMENT TYPE: Journal

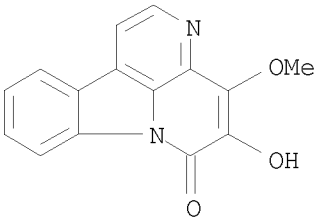
LANGUAGE: Japanese

AB Various fractions of Picrasma quassioides Bennett were assayed for their antigastric ulcer activity in rats. A MeOH extract of the wood prevented the secretion of gastric juice in a dose dependent manner. The MeOH extract also showed the same effects on rats having aspirin-induced gastric ulcer. Then, the MeOH extract was further extracted with $CHCl_3$ and EtOAc. The protective effects were detected in the $CHCl_3$-soluble fraction and their effective components were identified as nigakinone and methylnigakinone. The $CHCl_3$-insol. fraction, especially the EtOAc-soluble fraction, showed a protective effect on the mucous membrane. We also examined the effects of quassinoids of the Picrasma genus on the aspirin-induced ulcer in rats.

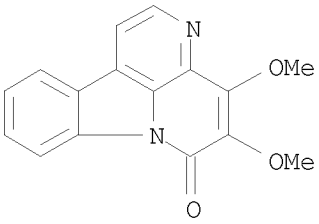
IT 18110-86-6, Nigakinone 18110-87-7, Methylnigakinone
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(gastric antiulcer components from Picrasma quassioides wood)

RN 18110-86-6 CAPLUS

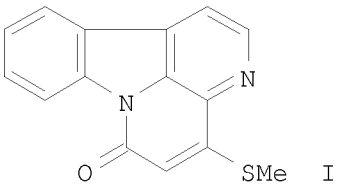
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



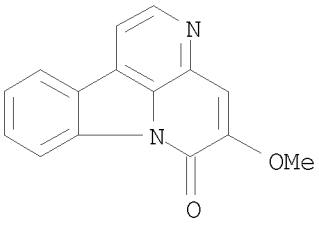
L4 ANSWER 41 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1994:575195 CAPLUS
DOCUMENT NUMBER: 121:175195
ORIGINAL REFERENCE NO.: 121:31715a,31718a
TITLE: 13C NMR and other spectral data of 4-methylthiocanthin-6-one from Quassia africana
AUTHOR(S): Ayafor, J. Foyere; Tchuendem, Marguerite K.; Mbazoa, Celine M.; Ngadjui, Bonaventure T.; Tillequin, Francois
CORPORATE SOURCE: Fac. Sci., Univ. Yaounde, Yaounde, Cameroon
SOURCE: Bulletin of the Chemical Society of Ethiopia (1993), 7(2), 121-4
CODEN: BCETE6; ISSN: 1011-3924
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



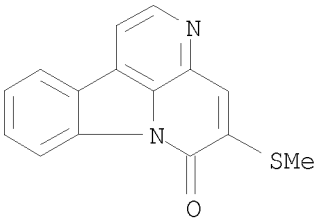
I

AB The rare alkaloid 4-methylthiocanthin-6-one (I) was isolated from the root bark of Q. africana together with 5-methoxycanthin-6-one. The MS, 1H NMR and 13C NMR data for 4-methylthiocanthin-6-one are reported herein for the 1st time. In particular, unambiguous assignment of the 13C NMR chemical shifts have been made using 1D and 2D NMR expts.

IT 15071-56-4, 5-Methoxycanthin-6-one
RL: BIOL (Biological study)
(from Quassia africana)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)

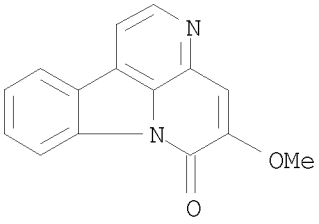


IT 157770-30-4
RL: BIOL (Biological study)
(from Quassia africana, isolation and structure of)
RN 157770-30-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(methylthio)- (CA INDEX NAME)

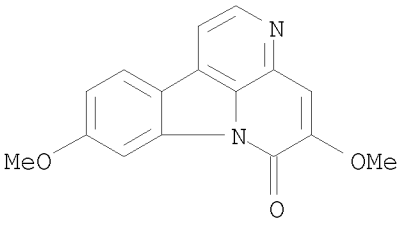


L4 ANSWER 42 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1994:478270 CAPLUS
DOCUMENT NUMBER: 121:78270
ORIGINAL REFERENCE NO.: 121:13959a,13962a
TITLE: Antiparasitic compounds from East African plants: Isolation and biological activity of anonaine, matricarianol, canthin-6-one and caryophyllene oxide.
AUTHOR(S): Bettarini, F.; Borgonovi, G. E.; Fiorani, T.; Gagliardi, I.; Caprioli, V.; Massardo, P.; Ogoche, J. I. J.; Hassanali, A.; Nyandat, E.; Chapya, A.
CORPORATE SOURCE: Ist. Guido Donegani S.p.A., Enimont Group, Novara, 28100, Italy
SOURCE: Insect Science and Its Application (1993), 14(1), 93-9
CODEN: ISIADL; ISSN: 0191-9040
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Five natural compds. possessing antiparasitic activity were isolated from East African plants and tested, together with some semisynthetic derivs., against microorganisms and arthropods of agricultural interest. Anonaine , from Annona squamosa, canthin-6-one and 5-methoxycanthin-6-one , from Fagaropsis angolensis, showed fungicidal activity. E,Z-matricarianol , from Hoehnelia vernonioides was fungicidal, insecticidal and acaricidal. Caryophyllene oxide, from Uvaria, was insecticidal and antifeedant. Canthin-6-one and its dihydro derivative were the most effective antimicrobial

compds. tested.
IT 15071-56-4, 5-Methoxycanthin-6-one
RL: BIOL (Biological study)
(from Fagaropsis angolensis, as fungicide)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)

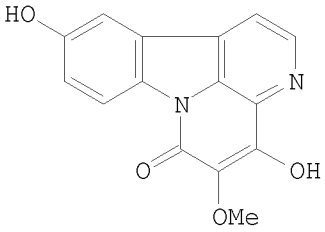


L4 ANSWER 43 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1994:431134 CAPLUS
DOCUMENT NUMBER: 121:31134
ORIGINAL REFERENCE NO.: 121:5673a,5676a
TITLE: Canthin-6-one alkaloids from Eurycoma longifolia
AUTHOR(S): Mitsunaga, Katsuyoshi; Koike, Kazuo; Tanaka, Tomoko; Ohkawa, Youko; Kobayashi, Yuko; Sawaguchi, Takako; Ohmoto, Taichi
CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Funabashi, 274, Japan
SOURCE: Phytochemistry (1994), 35(3), 799-802
CODEN: PYTCAS; ISSN: 0031-9422
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Five new canthin-6-one alkaloids, 9,10-dimethoxycanthin-6-one, 10-hydroxy-9-methoxycanthin-6-one, 11-hydroxy-10-methoxycanthin-6-one, 5,9-dimethoxycanthin-6-one and 9-methoxy-3-methylcanthin-5,6-dione, were isolated from the bark and wood of E. longifolia, along with six known canthin-6-one alkaloids and two known β-carboline alkaloids. Their structures were determined from spectroscopic data and other chemical evidence.
IT 155861-54-4
RL: BIOL (Biological study)
(from Eurycoma longifolia, structure of)
RN 155861-54-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5,9-dimethoxy- (CA INDEX NAME)

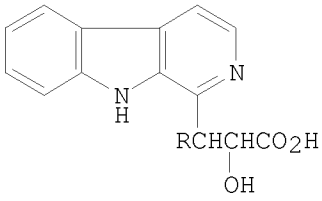


L4 ANSWER 44 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1994:405068 CAPLUS
DOCUMENT NUMBER: 121:5068

ORIGINAL REFERENCE NO.: 121:1119a,1122a
TITLE: New alkaloids, picrasidines W, X and Y, from Picrasma quassioides and x-ray crystallographic analysis of picrasidine Q
AUTHOR(S): Li, Hong Yu; Koike, Kazuo; Ohmoto, Taichi
CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Funabashi, 274, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1993), 41(10), 1807-11
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



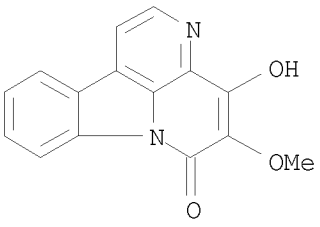
I



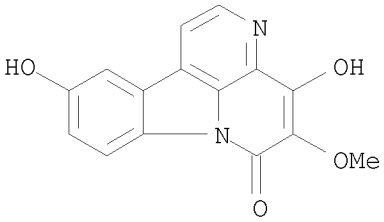
II, R=H
III, R=OH

AB Three new alkaloids, picrasidines W (I), X (II) and Y (III), were isolated from the wood of Picrasma quassioides Bennet (Simaroubaceae). Their structures were determined by spectral and chemical evidence. Previously isolated picrasidine Q (4) was unambiguously determined by x-ray crystallog. anal.

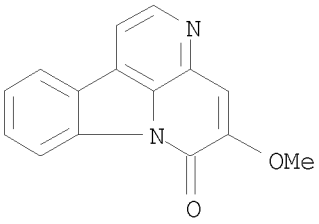
IT 101219-61-8, Picrasidine Q
RL: PROC (Process)
(X-ray crystallog. anal. of, from Picrasma quassioides)
RN 101219-61-8 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-hydroxy-5-methoxy- (CA INDEX NAME)



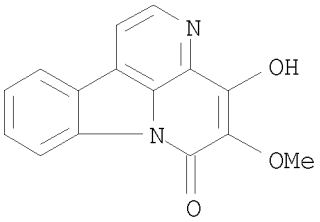
IT 155416-28-7
RL: PROC (Process)
(structure and isolation of, from Picrasma quassioides wood)
RN 155416-28-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,10-dihydroxy-5-methoxy- (CA INDEX NAME)



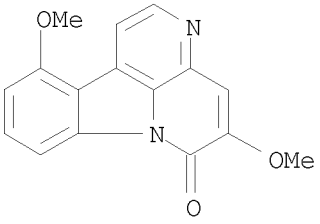
L4 ANSWER 45 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1994:101909 CAPLUS
DOCUMENT NUMBER: 120:101909
ORIGINAL REFERENCE NO.: 120:17931a,17934a
TITLE: A novel canthin-6-one alkalid isolated from cell suspension cultures of Brucea javanica (L.) merr.
AUTHOR(S): Chen, Karin Chiung Sheue; Chang, Hui Li; Chan, Mei Ling; Lee, Shoei Sheng
CORPORATE SOURCE: Sch. Pharm., Natl. Taiwan Univ., Taipei, 100, Taiwan
SOURCE: Journal of the Chinese Chemical Society (Taipei, Taiwan) (1993), 40(4), 403-5
CODEN: JCCTAC; ISSN: 0009-4536
DOCUMENT TYPE: Journal
LANGUAGE: English
AB From cell suspension cultures of Brucea javanica , the canthin-6-one alkaloid 5,11-dimethoxycanthin-6-one was isolated. The structural determination is based on spectral anal. Five other alkaloids, canthin-6-one-3-N-oxide, 11-hydroxycanthin-6-one, canthin-6-one , 5-methoxycanthin-6-one , and 11-methoxycanthin-6-one , were also identified.
IT 15071-56-4 101219-61-8
RL: BIOL (Biological study)
(from Brucea javanica cell suspension cultures)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



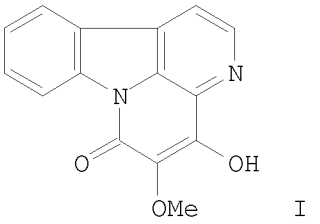
RN 101219-61-8 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-hydroxy-5-methoxy- (CA INDEX NAME)



IT 152592-77-3
RL: BIOL (Biological study)
(from Brucea javanica cell suspension cultures, isolation and structure of)
RN 152592-77-3 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5,11-dimethoxy- (CA INDEX NAME)



L4 ANSWER 46 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1992:588225 CAPLUS
DOCUMENT NUMBER: 117:188225
ORIGINAL REFERENCE NO.: 117:32409a,32412a
TITLE: Isolation of 4-hydroxy-5-methoxycanthin-6-one from Picrasma quassioides and revision of a previously reported structure
AUTHOR(S): Liu, Jian; Davidson, Stephen R.; Van der Heijden, Robert; Verpoorte, Robert; Howarth, Oliver W.
CORPORATE SOURCE: Chem. Lab., Univ. Kent, Canterbury/Kent, CT2 7NH, UK
SOURCE: Liebigs Annalen der Chemie (1992), (9), 987-8
CODEN: LACHDL; ISSN: 0170-2041
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

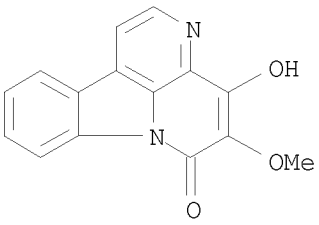
AB A new alkaloid, 4-hydroxy-5-methoxycanthin-6-one (I), was isolated from

Picrasma quassioides (Simaroubaceae), and its structure has been determined by high-field 1H- and 13C-NMR, 13C,1H-HETCOR, 1H,1H-2D-COSY, and NOE-difference spectra. Previous data, interpreted by other workers as being from this compound, is instead tentatively reassigned to another new alkaloid structure, 4-hydroxy-3-methylcanthine-5,6-dione.

IT 101219-61-8
RL: BIOL (Biological study)
(from Picrasma quassioides, structure of)

RN 101219-61-8 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-hydroxy-5-methoxy- (CA INDEX NAME)



L4 ANSWER 47 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1992:528185 CAPLUS

DOCUMENT NUMBER: 117:128185

ORIGINAL REFERENCE NO.: 117:22181a,22184a

TITLE: Canthin-6-one alkaloids from Picrolemma granatensis

AUTHOR(S): Rodrigues Fo., Edson; Fernandes, Joao B.; Vieira, Paulo C.; Da Silva, M. Fatima das G. F.

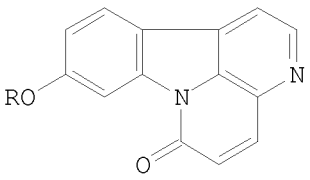
CORPORATE SOURCE: Dep. Quim., Univ. Fed. Sao Carlos, Sao Carlos, 13560, Brazil

SOURCE: Phytochemistry (1992), 31(7), 2499-501
CODEN: PYTCAS; ISSN: 0031-9422

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



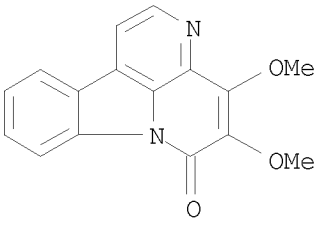
I, R=Me

II, R=H

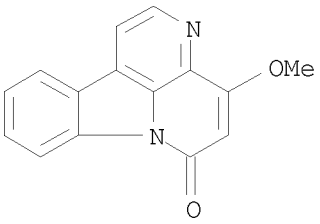
AB From the branches of Picrolemma granatensis, besides scopoletin, the known canthin-6-one alkaloids 9-methoxycanthin-6-one (I), 9-hydroxycanthin-6-one (II), 4,5-dimethoxycanthin-6-one and the two new 8-hydroxy-9-methoxycanthin-6-one and 9-methoxycanthin-6-one 3-N-oxide were identified by full spectral anal. The placement of a substituent at C-9 was established by NOE expts.

IT 18110-87-7, 4,5-Dimethoxycanthin-6-one
RL: BIOL (Biological study)
(of Picrolemma granatensis)

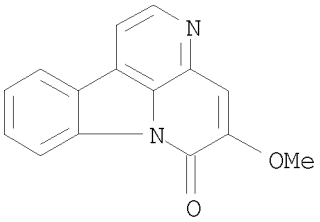
RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



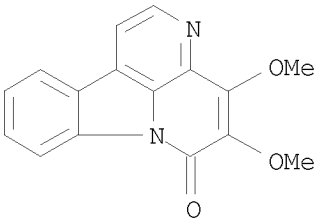
L4 ANSWER 48 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1991:457276 CAPLUS
DOCUMENT NUMBER: 115:57276
ORIGINAL REFERENCE NO.: 115:9777a,9780a
TITLE: Analysis and distribution of alkaloids in Picrasma quassioides
AUTHOR(S): Kohda, Kuniko; Koike, Kazuo; Ohmoto, Taichi; Tanaka, Osamu; Itou, Hiroshi
CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Funabashi, 274, Japan
SOURCE: Shoyakugaku Zasshi (1990), 44(4), 298-303
CODEN: SHZAAY; ISSN: 0037-4377
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB A HPLC method was developed for the simultaneous and quant. anal. of eleven β-carboline and canthinone alkaloids in P. quassioides. The method is characterized by the simultaneous presentation of the alkaloid profile. The HPLC was carried out by using a Capcell Pak ODS column with methanol-water (55:45), 0.01M disodium hydrogenphosphate and methanol-water (4:6), and 0.01M disodium hydrogenphosphate as the mobile phases with detection at 254 nm. The quantities of the alkaloids in the bark and wood of P. quassioides of Japan and Bhutan were determined by the method.
IT 5023-08-5 15071-56-4 18110-87-7
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in Picrasma quassioides bark and wood, by HPLC)
RN 5023-08-5 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-methoxy- (CA INDEX NAME)



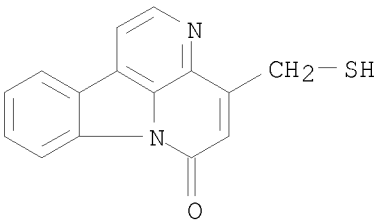
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



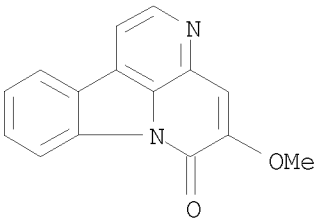
RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



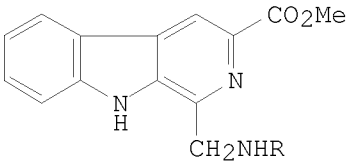
L4 ANSWER 49 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1991:446065 CAPLUS
DOCUMENT NUMBER: 115:46065
ORIGINAL REFERENCE NO.: 115:7933a,7936a
TITLE: 8-Prenylcoumarins: typical secondary metabolites of the Rutaceae from Pentaceras australis
AUTHOR(S): Quader, Abdul; Gray, Alexander I.; Hartley, Thomas G.; Waterman, Peter G.
CORPORATE SOURCE: Dep. Pharm., Univ. Strathclyde, Glasgow, G1 1XW, UK
SOURCE: Biochemical Systematics and Ecology (1991), 19(1), 91
CODEN: BSECBU; ISSN: 0305-1978
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The 8-prenylcoumarins osthol and ramosin, the pyranocoumarin seselin as well as canthin-6-one and 4-thiomethylcanthin-6-one were isolated from P. australis. The taxonomic significance of these findings is discussed.
IT 134984-19-3
RL: BIOL (Biological study)
(of Pentaceras australis)
RN 134984-19-3 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-(mercaptomethyl)- (CA INDEX NAME)



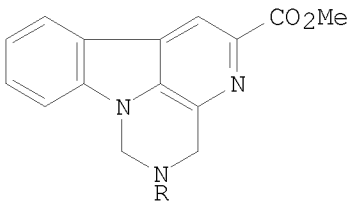
L4 ANSWER 50 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1991:98327 CAPLUS
DOCUMENT NUMBER: 114:98327
ORIGINAL REFERENCE NO.: 114:16687a,16690a
TITLE: Production of canthin-6-one alkaloids by cell suspension cultures of Brucea javanica (L.) Merr
AUTHOR(S): Liu, Karin C. S.; Yang, Shi Lin; Roberts, Margaret F.; Phillipson, J. David
CORPORATE SOURCE: Sch. Pharm., Univ. London, London, WC1N 1AX, UK
SOURCE: Plant Cell Reports (1990), 9(5), 261-3
CODEN: PCRPD8; ISSN: 0721-7714
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cell suspension cultures of B. javanica were used to determine culture growth characteristics and production of canthin-6-one alkaloids. The major alkaloids produced were canthin-6-one, 11-hydroxycanthin-6-one, 5-methoxycanthin-6-one and 11-methoxycanthin-6-one. Alkaloids were synthesized throughout the 36 day growth cycle of the cells with maximum amts. within the cell occurring between days 20 to 28; approx. 10% of the alkaloids were in the medium at day 24 rising to 45% at day 32.
IT 15071-56-4, 5-Methoxycanthin-6-one
RL: FORM (Formation, nonpreparative)
(formation of, by cell suspension cultures of Brucea javanica)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



L4 ANSWER 51 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1990:552300 CAPLUS
DOCUMENT NUMBER: 113:152300
ORIGINAL REFERENCE NO.: 113:25891a
TITLE: New tetracyclic compounds containing the β-carboline moiety
AUTHOR(S): Del Giudice, Maria Rosaria; Gatta, Franco; Settimj, Guido
CORPORATE SOURCE: Lab. Chim. Farm., Ist. Super. Sanita, Rome, 00161, Italy
SOURCE: Journal of Heterocyclic Chemistry (1990), 27(4), 967-73
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 113:152300
GI



II



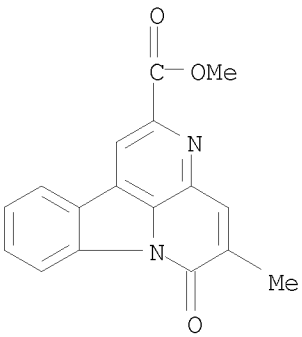
III

AB Oxidation of 1-methyl-3-methoxycarbonyl-β-carboline with SeO2 gave 1-formyl-3-methoxycarbonyl-β-carboline (I), which reacted with acetic or propionic anhydride to give the 2-methoxycarbonyl-6H-indolo[3,2,1-d,e][1,5]naphthyridin-6-ones; reaction of I with some primary amines led to the formation of the Schiff bases, which were reduced to the 1-aminomethyl-3-methoxycarbonyl-β-carbolines II (R = Me, Et, Bu, CH2Ph, CH2CH2Ph, CH2CH2CH2OH, CH2CH2NEt2) with NaBH4. Cyclization of II with aqueous formaldehyde led to the pyrimido[3,4,5-lm]pyrido[3,4-b]indoles III. Analogously, cyclization with formaldehyde, acetone, or 1,1'-carbonyldiimidazole of the 3-aminomethyl-1,2,3,4-tetrahydro-β-carbolines, obtained by reaction of 3-methoxycarbonyl-1,2,3,4-tetrahydro-β-carboline with amines followed by lithium aluminum hydride reduction of the resulting amides, gave the imidazo[1',5'-1,6]pyrido[3,4-b]indoles. Dieckmann cyclization of 3-methoxycarbonyl-2[(3-ethoxycarbonyl)-1-propyl]-1,2,3,4-tetrahydro-β-carboline led to a 1:1 mixture of the β-ketoesters, which underwent deethoxycarbonylation to 5,6,8,9,10,11,11a,12-octahydroindolo[3,2-b]quinolizin-11-one. Finally, the polyphosphoric acid (or esters) catalyzed cyclization of the N-acyl derivs. of 3-hydrazinocarbonyl-β-carboline led smoothly to the 3-(1,3,4-oxadiazol-2-yl)-β-carbolines.

IT 129609-51-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 129609-51-4 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridine-2-carboxylic acid, 5-methyl-6-oxo-, methyl ester (CA INDEX NAME)



L4 ANSWER 52 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN

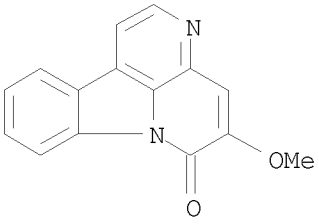
ACCESSION NUMBER: 1990:548877 CAPLUS

DOCUMENT NUMBER: 113:148877

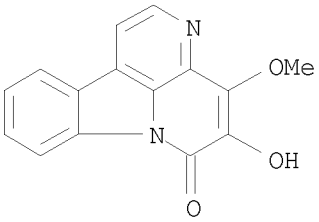
ORIGINAL REFERENCE NO.: 113:25225a,25228a

TITLE: Canthin-6-one alkaloids from Pierreodendron africanum

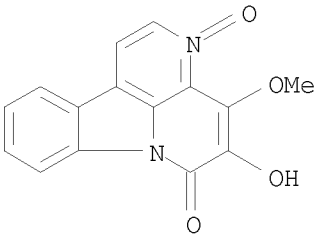
stem barks
AUTHOR(S): Vanhaelen-Fastre, R.; Vanhaelen, M.; Diallo, B.; Breyne, H.
CORPORATE SOURCE: Inst. Pharm., Univ. Libre Bruxelles, Brussels, B-1050, Belg.
SOURCE: Planta Medica (1990), 56(2), 241-2
CODEN: PLMEAA; ISSN: 0032-0943
DOCUMENT TYPE: Journal
LANGUAGE: English
AB From P. africanum, 5 alkaloids were isolated: canthin-6-one, 5-methoxycanthin-6-one, 11-hydroxycanthin-6-one, 3-methoxycanthin-2,6-dione and canthin-2,6-dione.
IT 15071-56-4, 5-Methoxycanthin-6-one
RL: BIOL (Biological study)
(from Pierreodendron africanum stem bark)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



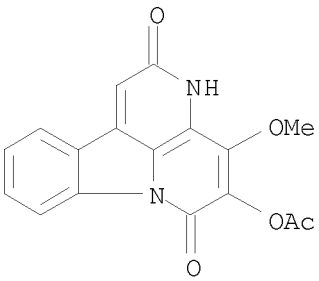
L4 ANSWER 53 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1990:548876 CAPLUS
DOCUMENT NUMBER: 113:148876
ORIGINAL REFERENCE NO.: 113:25225a,25228a
TITLE: New canthin-6-one alkaloids from Quassia amara
AUTHOR(S): Barbetti, P.; Grandolini, G.; Fardella, G.; Chiappini, I.; Mastalia, A.
CORPORATE SOURCE: Ist. Chim. Farm. Tec. Farm., Univ. Perugia, Perugia, I-06100, Italy
SOURCE: Planta Medica (1990), 56(2), 216-17
CODEN: PLMEAA; ISSN: 0032-0943
DOCUMENT TYPE: Journal
LANGUAGE: English
AB From the wood of Q. amara (Simarubaceae), two new canthin-6-one alkaloids have been isolated and their structures determined as 3-methyl-4-methoxy-5-hydroxycanthin-2,6-dione and 4-methoxy-5-hydroxycanthin-6-one 3-N-oxide by spectroscopic and chemical methods. 3-Methylcanthin-5,6-dione has been also isolated and identified for the first time from this source.
IT 18110-86-6, 4-Methoxy-5-hydroxycanthin-6-one
RL: BIOL (Biological study)
(from Quassia amara)
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



IT 129722-98-1
RL: BIOL (Biological study)
(from Quassia amara, isolation and structure of)
RN 129722-98-1 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy-, 3-oxide (CA INDEX NAME)



IT 129724-31-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 129724-31-8 CAPLUS
CN 3H-Indolo[3,2,1-de][1,5]naphthyridine-2,6-dione, 5-(acetyloxy)-4-methoxy- (CA INDEX NAME)

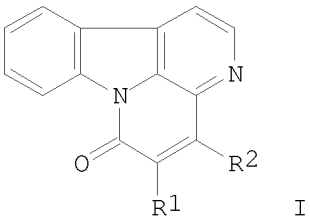


L4 ANSWER 54 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1990:538493 CAPLUS
DOCUMENT NUMBER: 113:138493
ORIGINAL REFERENCE NO.: 113:23417a,23420a
TITLE: Antiulcer alkaloids from Picrasma ailanthoids
INVENTOR(S): Omoto, Taichi; Shinho, Yujiro; Nakajima, Kajiro; Ishiwatari, Hiroe; Ito, Hiroshi
PATENT ASSIGNEE(S): Ohta's Isan Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02004790	A	19900109	JP 1988-155940	19880623
JP 06096531	B	19941130		

PRIORITY APPLN. INFO.: JP 1988-155940 19880623
OTHER SOURCE(S): MARPAT 113:138493
GI

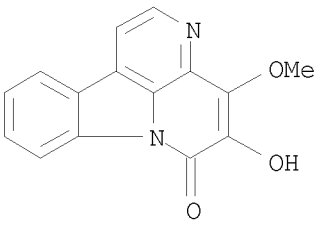


I

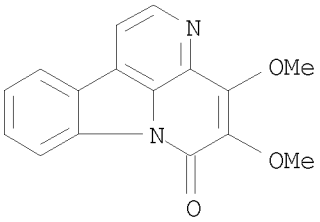
AB The nigakinone alkaloids (I; R1, R2 = OH or MeO) are the antiulcer principles of P. ailanthoides or Ailanthus altissima. The oral dosage forms (powders, tablets, emulsions, etc.) and injections containing nigakinone derivs. can be prepared by extraction and purification by column chromatog. from the plants. Thus, tablets, granules, and injections containing nigakinone were prepared, and their antiulcer effects were tested in rats, with good inhibitory action on gastric acid and pepsin secretions.

IT 18110-86-6P, Nigakinone 18110-87-7P, Methylnigakinone
18110-89-9P, Nornigakinone
RL: PREP (Preparation)
(of Picrasina ailanthroides, dosage preparation and antiulcer effect of)

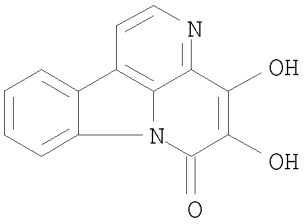
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



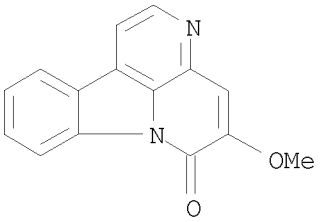
RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



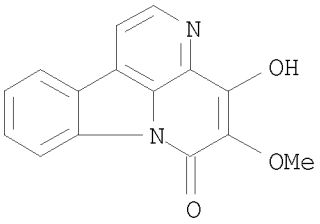
RN 18110-89-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dihydroxy- (CA INDEX NAME)



L4 ANSWER 55 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1990:155240 CAPLUS
DOCUMENT NUMBER: 112:155240
ORIGINAL REFERENCE NO.: 112:26162h,26163a
TITLE: Canthin-6-one alkaloids from cell suspension cultures of Brucea javanica
AUTHOR(S): Liu, Karin Chiung Sheue; Yang, Shi Lin; Roberts, Margaret F.; Phillipson, J. David
CORPORATE SOURCE: Sch. Pharm., Univ. London, London, WC1N 1AX, UK
SOURCE: Phytochemistry (1990), 29(1), 141-3
CODEN: PYTCAS; ISSN: 0031-9422
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Canthin-6-one, 11-hydroxycanthin-6-one, 11-methoxycanthin-6-one, 5-methoxycanthin-6-one, 4-hydroxy-5-methoxycanthin-6-one and canthin-6-one-3N-oxide were isolated from cell suspension cultures of B. javanica. The total yield of alkaloid produced in the cells and the medium is >2.0 mg/g dry weight of cells.
IT 15071-56-4, 5-Methoxycanthin-6-one 101219-61-8
RL: BIOL (Biological study)
(from Brucea javanica cell suspension cultures)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)

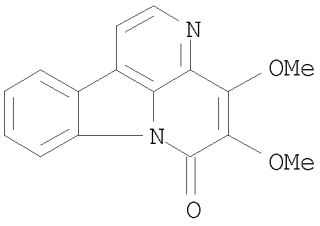


RN 101219-61-8 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-hydroxy-5-methoxy- (CA INDEX NAME)

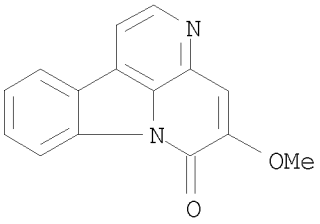


L4 ANSWER 56 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1989:219162 CAPLUS
DOCUMENT NUMBER: 110:219162
ORIGINAL REFERENCE NO.: 110:36279a,36282a
TITLE: Determination of alkaloids in Picrasma quassioides (D. Don) Benn
AUTHOR(S): Luo, S. R.; Guo, R.; Yang, J. S.
CORPORATE SOURCE: Inst. Mater. Med., Chin. Acad. Med. Sci., Beijing, Peop. Rep. China
SOURCE: Yaoxue Xuebao (1988), 23(12), 906-9
CODEN: YHHPAL; ISSN: 0513-4870
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB A simple, sensitive, and accurate method is described for separation and determination of 4 alkaloids, 1-formyl-β-carboline, 4,5-dimethoxycanthin-6-one, 1-vinyl-4,8-dimethoxy-β-carboline, and 1-formyl-4-methoxy-β-carboline in Kumu (P. quassioides). A sample solution was applied at a point 1 cm from the bottom edge of the HPTLC silica gel plate (10 + 10 cm). $CHCl_3$ (H_2O saturated)-MeOH (40:0.5) was used as the developing solvent. The plate was saturated for 30 min and then developed twice for 9 cm using the ascending technique. The plate was fumigated with formic acid for 1 h at room temperature to intensify the spot color. The spots were scanned with a Schimadzu CS-910 TLC scanner. The content of 4 alkaloids in Ku-Mu was calculated by comparison with stds. spotted on the same plate. The standard curve was linear in the range of 0.05-0.30 μg for the 4 alkaloids. The method was applied to the anal. of different samples. This method can be used for the quality control of Kumu prepns. for clin. use.
IT 18110-87-7, 4,5-Dimethoxycanthin-6-one
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in Kumu (Picrasma quassioides) by high-performance TLC)
RN 18110-87-7 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)

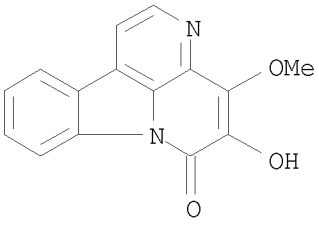


L4 ANSWER 57 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1989:169068 CAPLUS
DOCUMENT NUMBER: 110:169068
ORIGINAL REFERENCE NO.: 110:27937a,27940a
TITLE: Inhibition of cyclic AMP phosphodiesterase in medicinal plants. Part XV. Inhibition of adenosine 3',5'-cyclic monophosphate phosphodiesterase by alkaloids. II
AUTHOR(S): Ohmoto, Taichi; Nikaido, Tamotsu; Koike, Kazuo; Kohda, Kuniko; Sankawa, Ushio
CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Chiba, 274, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1988), 36(11), 4588-92
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The structure-activity relationships were studied for analogous alkaloids from Picrasma quassioides and Ailanthus altissima and their derivs. as inhibitors of cAMP phosphodiesterase. Altogether, 53 β-carboline, 18 canthinone, and 7 dimeric alkaloids were tested for cAMP phosphodiesterase inhibition. Major alkaloids among the 3 groups of congeners in P. quassioides and Al. altissima showed the most potent inhibitory activity, equal to or greater than that of papaverine used as a reference
IT 15071-56-4 18110-86-6 18110-87-7
18211-86-4 64118-73-6 89915-37-7
101219-61-8
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(cAMP phosphodiesterase inhibition by, structure in relation to)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)

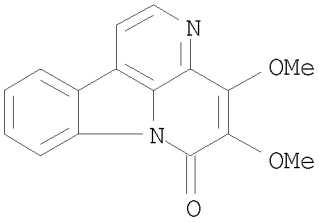


RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA

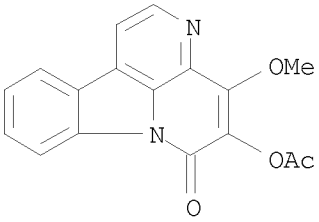
INDEX NAME)



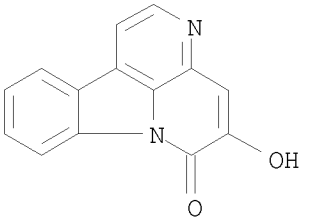
RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



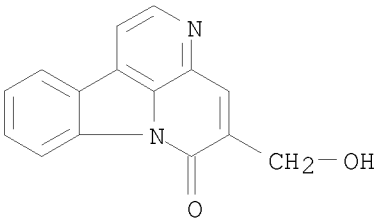
RN 18211-86-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(acetyloxy)-4-methoxy- (CA INDEX NAME)



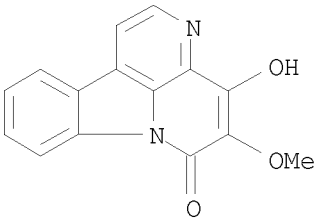
RN 64118-73-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy- (CA INDEX NAME)



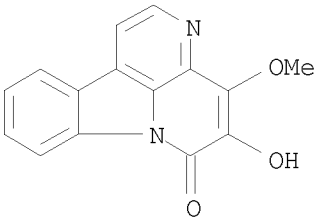
RN 89915-37-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(hydroxymethyl)- (CA INDEX NAME)



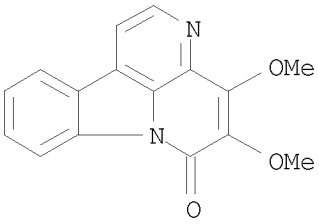
RN 101219-61-8 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-hydroxy-5-methoxy- (CA INDEX NAME)



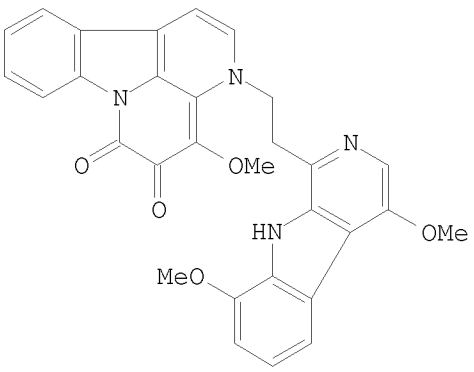
L4 ANSWER 58 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1989:111567 CAPLUS
DOCUMENT NUMBER: 110:111567
ORIGINAL REFERENCE NO.: 110:18351a,18354a
TITLE: Antiherpes activity of Simaroubaceae alkaloids in vitro
AUTHOR(S): Ohmoto, Taichi; Koike, Kazuo
CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Funabashi, 274, Japan
SOURCE: Shoyakugaku Zasshi (1988), 42(2), 160-2
CODEN: SHZAAY; ISSN: 0037-4377
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The antiherpes activity of the alkaloids from Picrasma quassioides and Ailanthus altissima was investigated in vitro. The β-carboline alkaloids tested had an activity against herpes simplex virus.
IT 18110-86-6 18110-87-7
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(virucidal activity of, against herpes simplex virus)
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



L4 ANSWER 59 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1989:72469 CAPLUS
DOCUMENT NUMBER: 110:72469
ORIGINAL REFERENCE NO.: 110:11903a,11906a
TITLE: The alkaloids of Picrasma quassioides. Part 11. Picrasidine U, dimeric alkaloid from Picrasma quassioides
AUTHOR(S): Koike, Kazuo; Ohmoto, Taichi
CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Chiba, 274, Japan
SOURCE: Phytochemistry (1988), 27(9), 3029-30
CODEN: PYTCAS; ISSN: 0031-9422
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



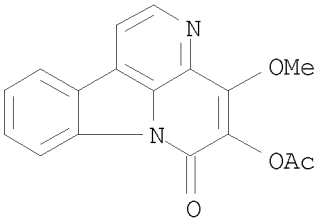
I

AB A new canthin-5,6-dione and β-carboline dimeric alkaloid, picrasidine U (I), was isolated from the root wood of P. quassioides. The structure was determined by spectral anal. and chemical evidence.

IT 18211-86-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 18211-86-4 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(acetyloxy)-4-methoxy- (CA INDEX NAME)



L4 ANSWER 60 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1988:52835 CAPLUS

DOCUMENT NUMBER: 108:52835

ORIGINAL REFERENCE NO.: 108:8765a,8768a

TITLE: A new neoquassin derivative from Quassia amara

AUTHOR(S): Grandolini, G.; Casinovi, C. G.; Barbetti, P.; Fardella, G.

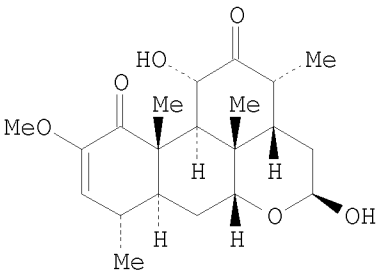
CORPORATE SOURCE: Ist. Chim. Farm. Tec. Farm., Univ. Perugia, Perugia, Italy

SOURCE: Phytochemistry (1987), 26(11), 3085-7
CODEN: PYTCAS; ISSN: 0031-9422

DOCUMENT TYPE: Journal

LANGUAGE: English

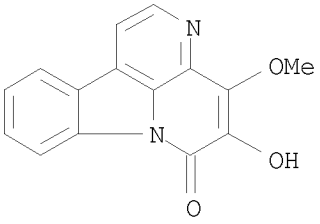
GI



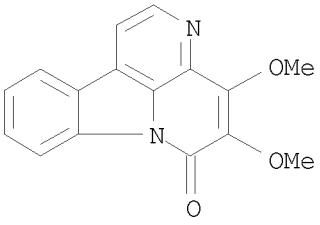
I

AB A new quassinoid, 11-dihydro-12-norneoquassin (I), was isolated from Q. amara wood and its structure determined by chemical and spectral means. Quassin, neoquassin, paraine, and isoparaine were also isolated, in addition to 4-methoxy-5-hydroxycanthin-6-one, which was isolated for the first time from Quassia.

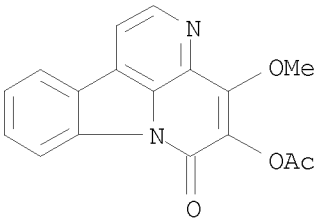
IT 18110-86-6
RL: BIOL (Biological study)
(from Quassia amara)
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



IT 18110-87-7P 18211-86-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)

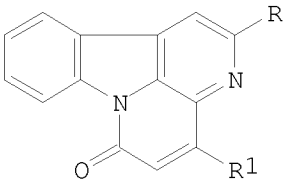


RN 18211-86-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(acetyloxy)-4-methoxy- (CA INDEX NAME)

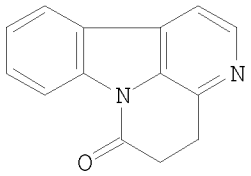


L4 ANSWER 61 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1987:455704 CAPLUS
DOCUMENT NUMBER: 107:55704
ORIGINAL REFERENCE NO.: 107:9203a,9206a
TITLE: Occurrence of indole alkaloids in Ailanthus altissima cell cultures
AUTHOR(S): Crespi-Perellino, N.; Guicciardi, A.; Malyszko, G.; Arlandini, E.; Ballabio, M.; Minghetti, A.

CORPORATE SOURCE: Ric. Sviluppo Microbiol. Ind., Farmitalia Carlo Erba, Milan, 20146, Italy
SOURCE: Journal of Natural Products (1986), 49(6), 1010-14
CODEN: JNPRDF; ISSN: 0163-3864
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



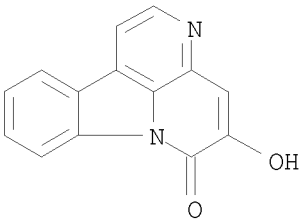
I, R=OH, R^1=H
II, R=H, R^1=OH



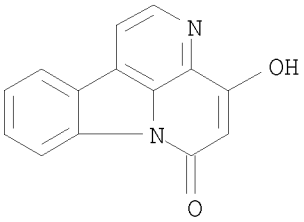
III

AB Production of alkaloids with both canthin-6-one and β-carboline structure by A. altissima cell cultures is reported. Besides canthin-6-one, 1-methoxycanthin-6-one, canthin-6-one-3-oxide, 1-methoxycanthin-6-one-3-oxide, 1-hydroxycanthin-6-one, 5-hydroxycanthin-6-one, β-carboline-1-propionic acid, and 4-methoxy-β-carboline-1-carboxylic acid methyl ester, three new alkaloids are described. These are 2-hydroxycanthin-6-one (I), 4-hydroxycanthin-6-one (II), and 4,5-dihydrocanthin-6-one (III).

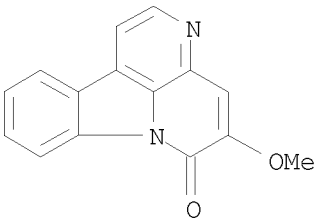
IT 64118-73-6, 5-Hydroxycanthin-6-one
RL: BIOL (Biological study)
(of Ailanthus altissima cell culture)
RN 64118-73-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy- (CA INDEX NAME)



IT 106941-27-9, 4-Hydroxycanthin-6-one
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Ailanthus altissima cell culture, isolation and structure of)
RN 106941-27-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-hydroxy- (CA INDEX NAME)



L4 ANSWER 62 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1987:451392 CAPLUS
DOCUMENT NUMBER: 107:51392
ORIGINAL REFERENCE NO.: 107:8367a,8370a
TITLE: Antitumor agents: LXXXXVII. Cytotoxic antileukemic canthin-6-one alkaloids from Brucea antidysenterica and the structure activity relationships of their related derivatives
AUTHOR(S): Fukamiya, Narihiko; Okano, Masayoshi; Aratani, Takaaki; Negoro, Kenji; Lin, Yuh Meei; Lee, Kuo Hsiung
CORPORATE SOURCE: Fac. Integr. Arts Sci., Hiroshima Univ., Hiroshima, 730, Japan
SOURCE: Planta Medica (1987), 53(2), 140-3
CODEN: PLMEAA; ISSN: 0032-0943
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two cytotoxic antileukemic alkaloids, 11-hydroxy-1-methoxycanthin-6-one and 1-hydroxy-11-methoxycanthin-6-one, as well as 1-methoxycanthin-6-one were isolated from B. antidysenterica. The Me ether and a series of esters of 11-hydroxycanthin-6-one were prepared for investigating the structure-activity relationships. 1,11-Dimethoxycanthin-6-one and 11-hydroxycanthin-6-one had the most potent cytotoxic activity. Hydroxy and(or) methoxy substitutions at C-10 or C-11 of canthin-6-one alkaloids are structural requirement for the potent cytotoxicity. Similar substitution at C-1 had no significant effect upon cytotoxicity.
IT 15071-56-4
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(isolation and antileukemic activity of, from Brucea antidysenterica)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



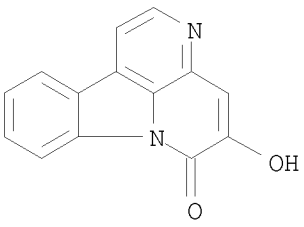
L4 ANSWER 63 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1987:99460 CAPLUS
DOCUMENT NUMBER: 106:99460
ORIGINAL REFERENCE NO.: 106:16233a,16236a

TITLE: Biosynthetic relationship between indole alkaloids produced by cell cultures of Ailanthus altissima
AUTHOR(S): Crespi-Perellino, N.; Guicciardi, A.; Malyszko, G.; Minghetti, A.
CORPORATE SOURCE: Ric. Sviluppo Microbiol. Ind., Farmitalia Carlo Erba, Milan, 20146, Italy
SOURCE: Journal of Natural Products (1986), 49(5), 814-22
CODEN: JNPRDF; ISSN: 0163-3864
DOCUMENT TYPE: Journal
LANGUAGE: English

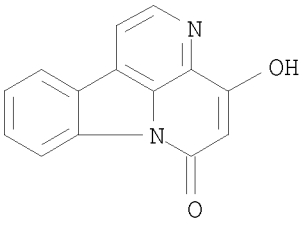
AB Feeding expts. in which [14C]-tryptophan was administered to cell cultures of A. altissima showed that the biosynthetic sequence of the produced alkaloids is as follows: tryptophan → β-carboline-1-propionic acid → 4,5-dihydrocanthin-6-one (I) → canthin-6-one (II) →1-hydroxycanthin-6-one → 1-methoxycanthin-6-one (III) → 1-methoxycanthin-6-one-3-oxide. 2-Hydroxycanthin-6-one (IV), 4-hydroxycanthin-6-one (V), and 5-hydroxycanthin-6-one derive from II, but their methoxy derivs. were not detected in the cultures. Canthin-6-one 3-oxide also derives from II but is not further transformed. [14C]tryptamine was ineffective in labeling the alkaloids. Except for II and I, none of the above alkaloids has ever been described in plant cell cultures, and I, IV, and V have never actually been found in nature.

IT 64118-73-6, 5-Hydroxycanthin-6-one 106941-27-9
RL: FORM (Formation, nonpreparative)
(formation of, in Ailanthus altissima cell cultures, biosynthetic pathways in relation to)

RN 64118-73-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy- (CA INDEX NAME)

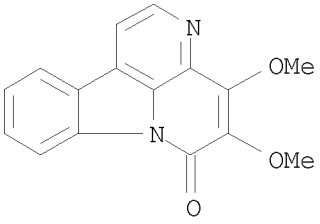


RN 106941-27-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-hydroxy- (CA INDEX NAME)

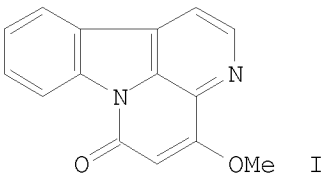


L4 ANSWER 64 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1987:30064 CAPLUS
DOCUMENT NUMBER: 106:30064
ORIGINAL REFERENCE NO.: 106:5007a
TITLE: Indole alkaloids and quassin from Quassia africana

AUTHOR(S): Lumonadio, Luyengi; Vanhaelen, Maurice
CORPORATE SOURCE: Inst. Pharm., Univ. Libre Bruxelles, Brussels, 1050, Belg.
SOURCE: Journal of Natural Products (1986), 49(5), 939
CODEN: JNPRDF; ISSN: 0163-3864
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The root bark of Q. africana (syn. Simaba africana) contained 3 alkaloids (canthin-6-one, 4,5-dimethoxycanthin-6-one, β-carboline-1-propionic acid) and quassin, an addnl. quassinoid different from those previously isolated from this plant. Their structures were established by spectroscopy and direct comparison with authentic samples.
IT 18110-87-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



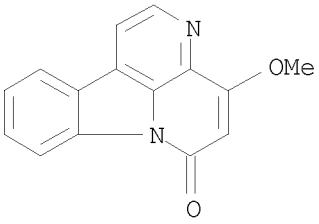
L4 ANSWER 65 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1987:15732 CAPLUS
DOCUMENT NUMBER: 106:15732
ORIGINAL REFERENCE NO.: 106:2669a,2672a
TITLE: The isolation and structure of cordatanine from Drymaria cordata (L.) Willd
AUTHOR(S): Chen, Wensen
CORPORATE SOURCE: South China Inst. Bot., Acad. Sin., Canton, Peop. Rep. China
SOURCE: Zhiwu Xuebao (1986), 28(4), 450-2
CODEN: CHWHAY; ISSN: 0577-7496
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
GI



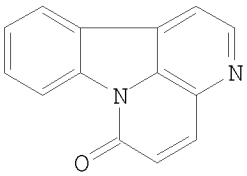
I

AB Cordatanine (I) was identified from D. cordadta with IR, NMR, and mass spectrometry. The plant sample was extracted with 95% EtOH. The concentrated EtOH

solution was extracted with 2% HCl, and the neutralized HCl solution was extracted with
CHCl3. Silica gel H column chromatog. was used to purify cordatanine. The elution solvent was CHCl3-EtOH (20:1). From 10 kg of sample, 162 mg of I was obtained.
IT 5023-08-5
RL: BIOL (Biological study)
(from Drymaria cordata, isolation and structure of)
RN 5023-08-5 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-methoxy- (CA INDEX NAME)



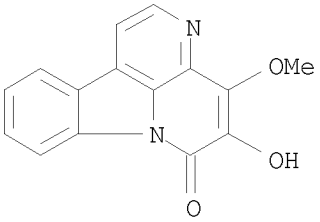
L4 ANSWER 66 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1986:168663 CAPLUS
DOCUMENT NUMBER: 104:168663
ORIGINAL REFERENCE NO.: 104:26727a,26730a
TITLE: Carbon-13 nuclear magnetic resonance study of canthin-6-one alkaloids
AUTHOR(S): Koike, Kazuo; Ohmoto, Taichi
CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Chiba, 274, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1985), 33(12), 5239-44
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



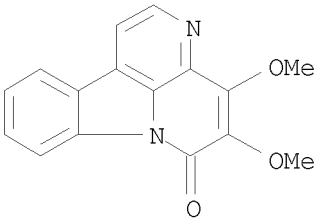
I

AB The 13C-NMR spectra of canthin-6-one (I) and 1-methoxycanthin-6-one from Ailanthus altissima and 5-hydroxy-4-methoxycanthin-6-one and 4,5--dimethoxycanthin-6-one from Picrasma quassioides were measured with the aid of C-proton chemical shift correlations, high-resolution proton-coupled 13C spectra, and long-range selective proton decoupling expts. The one-bond C coupling constant (1JCH) values of tertiary C atoms of the 4 compds. except at the C-2 position were within the range of 160-168.7 Hz; however, the 1J(C-2, H) value of 178.6-179.7 Hz was larger than those of other C because of the neighboring N atom. All C resonances of I alkaloids were assigned.

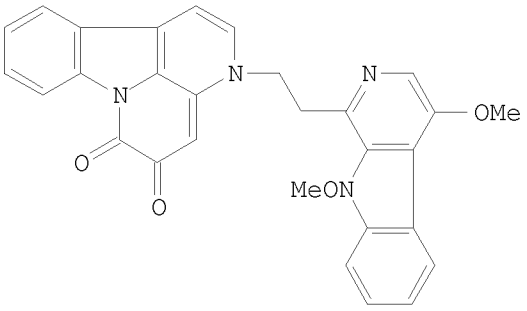
IT 18110-86-6 18110-87-7
RL: PRP (Properties)
(carbon-13 NMR of)
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



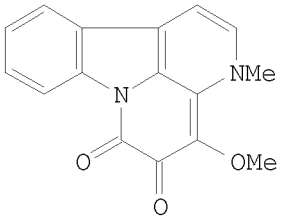
RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



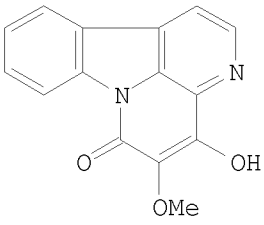
L4 ANSWER 67 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1986:145469 CAPLUS
DOCUMENT NUMBER: 104:145469
ORIGINAL REFERENCE NO.: 104:22947a,22950a
TITLE: Studies on the alkaloids from Picrasma quassioides Bennet. VI. Structures of picrasidines N, O, and Q
AUTHOR(S): Ohmoto, Taichi; Koike, Kazuo
CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Funabashi, 274, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1985), 33(11), 4901-5
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I



II



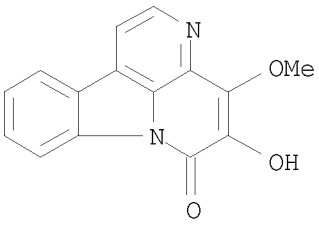
III

AB Three new alkaloids, picrasidines N (I), O (III) and Q (III), were isolated from the root wood of P. quassioides (Simaroubaceae). The structures were determined on the basis of spectral anal. and chemical evidence.

IT 18110-86-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(methylation of)

RN 18110-86-6 CAPLUS

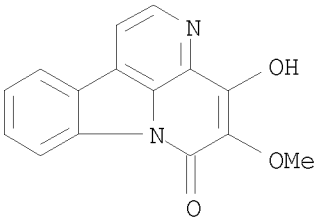
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



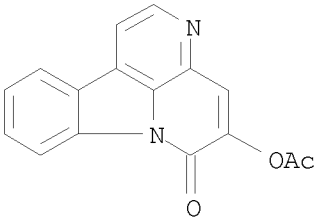
IT 101219-61-8
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Picrasma quassioides, isolation and structure determination of)

RN 101219-61-8 CAPLUS

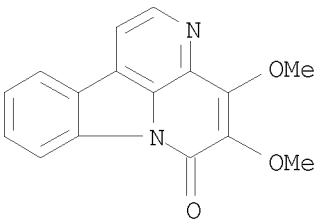
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-hydroxy-5-methoxy- (CA INDEX NAME)



IT 99964-80-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 99964-80-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(acetyloxy)- (CA INDEX NAME)

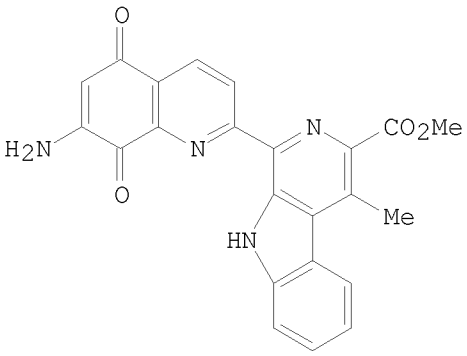


IT 18110-87-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by methylation of picrasidine O)
RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



L4 ANSWER 68 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1986:109316 CAPLUS
DOCUMENT NUMBER: 104:109316
ORIGINAL REFERENCE NO.: 104:17309a,17312a
TITLE: Total synthesis of lavendamycin methyl ester
AUTHOR(S): Boger, Dale L.; Duff, Steven R.; Panek, James S.; Yasuda, Masami
CORPORATE SOURCE: Dep. Med. Chem., Univ. Kansas, Lawrence, KS, 66045-2500, USA
SOURCE: Journal of Organic Chemistry (1985), 50(26), 5790-5
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal

LANGUAGE: English
OTHER SOURCE(S): CASREACT 104:109316
GI



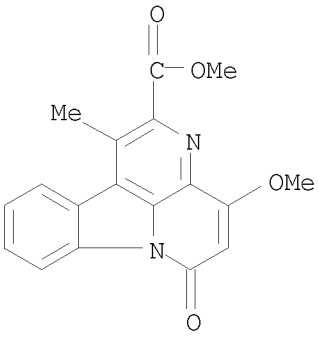
I

AB A total synthesis of lavendamycin Me ester (I) is based on a Frielander condensation of 2-amino-3-(benzyloxy)-4-bromobenzaldehyde with 1-acetyl-3-(methoxycarbonyl)-4-methyl-β-carboline (II). II was prepared by (Ph3P)4Pd-mediated closure of 2-acetyl-3-amino-4-(2-bromophenyl)-6-(methylcarbonyl)-5-methylpyridine which was derived from a regioselective, inverse electron demand [4 + 2] cycloaddn. of 3,5,6-trisethoxycarbonyl-1,2,4-triazine with the pyrrolidine enamine of 2-bromopropiophenone.

IT 99604-79-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

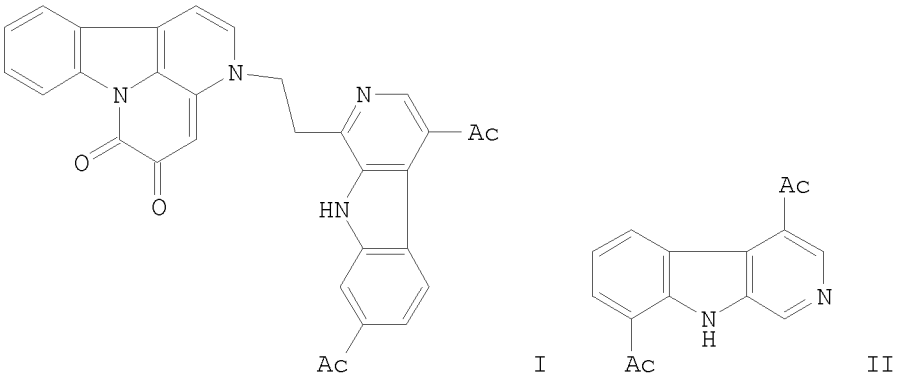
RN 99604-79-2 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridine-2-carboxylic acid, 4-methoxy-1-methyl-6-oxo-, methyl ester (CA INDEX NAME)



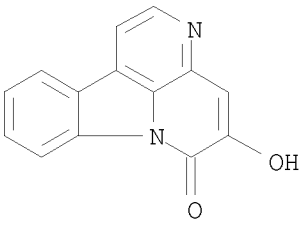
L4 ANSWER 69 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1986:65841 CAPLUS
DOCUMENT NUMBER: 104:65841
ORIGINAL REFERENCE NO.: 104:10489a,10492a
TITLE: Studies on the alkaloids from Picrasma quassioides Bennet. V. Structures of picrasidines L, M, and P
AUTHOR(S): Ohmoto, Taichi; Koike, Kazuo
CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Funabashi, 274, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1985), 33(9), 3847-51
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

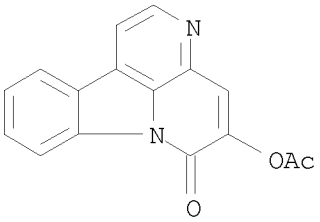


AB Two new alkaloids, picrasidines M (I) and P (II), were isolated from the root bark of P. quassioides. The structure of picrasidine L was revised from 3-methylcanthin-2,6-dione to 3-methylcanthin-5,6-dione. The structures were determined on the basis of spectral anal. and chemical evidence.

IT 64118-73-6
RL: BIOL (Biological study)
(picrasidine L preparation from)
RN 64118-73-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy- (CA INDEX NAME)



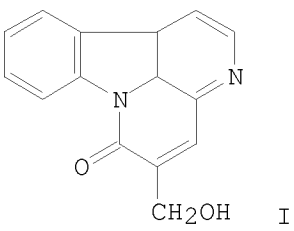
IT 99964-80-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and methylation of)
RN 99964-80-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(acetyloxy)- (CA INDEX NAME)



L4 ANSWER 70 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1986:10576 CAPLUS
DOCUMENT NUMBER: 104:10576
ORIGINAL REFERENCE NO.: 104:1783a,1786a
TITLE: The physiologically active hydroxymethylcanthinone from Ailanthus altissima
PATENT ASSIGNEE(S): Kaken Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 2 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

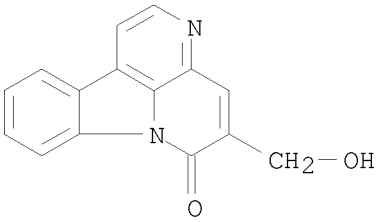
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60112791	A	19850619	JP 1983-220600	19831125

PRIORITY APPLN. INFO.: JP 1983-220600 19831125
GI

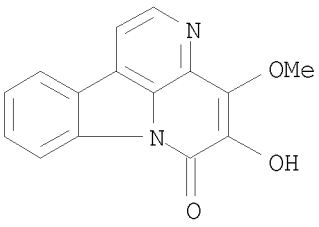


I

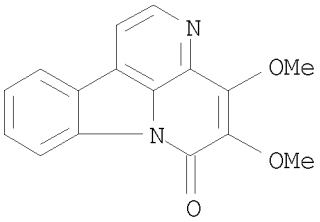
AB 5-(Hydroxymethyl)canthin-6-one (I) [89915-37-7], useful as an antitumor agent, vasodilator, phosphodiesterase inhibitor, and platelet agglutination inhibitor, was isolated from A. altissima root bark. Thus, 10 kg dried A. altissima root barks was extracted with MeOH at 40-50° for 40 h. The extract was evaporated to dryness. The residue was extracted with CHCl3 and worked up by column chromatog. on silica gel to yield 5 mg I.
IT 89915-37-7P
RL: PREP (Preparation)
(manufacture of, from Ailanthus altissima root bark, as antitumor agent and vasodilator and phosphodiesterase inhibitor and platelet agglutination inhibitor)
RN 89915-37-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(hydroxymethyl)- (CA INDEX NAME)



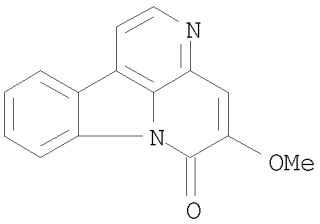
L4 ANSWER 71 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1985:606469 CAPLUS
DOCUMENT NUMBER: 103:206469
ORIGINAL REFERENCE NO.: 103:33153a,33156a
TITLE: Effect of alkaloids of simaroubaceous plants on the local blood flow rate
AUTHOR(S): Ohmoto, Taichi; Sung, Yeol Ik; Koike, Kazuo; Nikaido, Tamotsu
CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Funabashi, 274, Japan
SOURCE: Shoyakugaku Zasshi (1985), 39(1), 28-34
CODEN: SHZAAY; ISSN: 0037-4377
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Some alkaloids showing inhibitory effect on phosphodiesterase [9025-82-5] were tested for their effect on the rate of blood flow in intestine and stomach of rabbit. Canthin-6-one [479-43-6] from Picrasma quassiodes Bennet and β-carboline-1-propionic acid [89915-39-9] from Ailanthus altissima Swingel increased the rate of blood flow of intestine and stomach, whereas 4,5-dimethoxycanthin-6-one [18110-87-7], 5-hydroxy-4-methoxycanthin-6-one [18110-86-6] and 1-methoxycarbonyl-β-carboline [3464-66-2] from P. quassioides increased the rate of intestinal blood flow only.
IT 18110-86-6 18110-87-7
RL: BIOL (Biological study)
(circulation response to and phosphodiesterase inhibition by)
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)

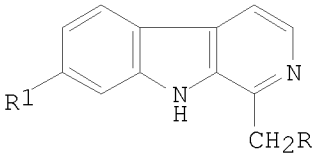


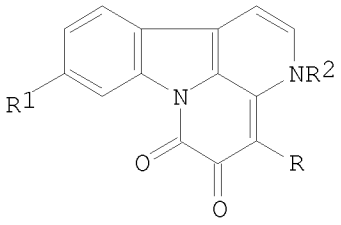
L4 ANSWER 72 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1985:502033 CAPLUS
DOCUMENT NUMBER: 103:102033
ORIGINAL REFERENCE NO.: 103:16289a,16292a
TITLE: Canthin-6-one alkaloids from Brucea antidysenterica root bark
AUTHOR(S): Harris, A.; Anderson, L. A.; Phillipson, J. D.; Brown, R. T.
CORPORATE SOURCE: Sch. Pharm., Univ. London, London, WC1N 1AX, UK
SOURCE: Planta Medica (1985), (2), 151-3
CODEN: PLMEAA; ISSN: 0032-0943
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Three canthin-6-one alkaloids, canthin-6-one, 5-methoxycanthin-6-one, and the novel alkaloid 1-hydroxy-11-methoxycanthin-6-one were isolated from the root bark of B. antidysenterica.
IT 15071-56-4
RL: BIOL (Biological study)
(from root bark of Brucea antidysenterica)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



L4 ANSWER 73 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1985:488114 CAPLUS
DOCUMENT NUMBER: 103:88114
ORIGINAL REFERENCE NO.: 103:14164h,14165a
TITLE: An unusually simple procedure for the synthesis of canthin-alkaloid derivatives using dialkyl oxalates as new regioselective N-alkylating agents
AUTHOR(S): Matus, Ilona; Fischer, Janos
CORPORATE SOURCE: Gedeon Richter Pharmaceutical Works, Budapest, H-1475, Hung.
SOURCE: Tetrahedron Letters (1985), 26(3), 385-8
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal

LANGUAGE: English
OTHER SOURCE(S): CASREACT 103:88114
GI

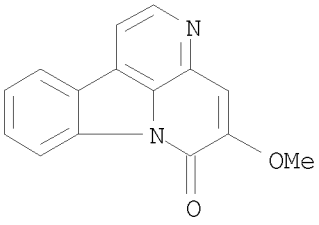

I


II

AB 1-Alkyl-β-carbolines I (R = H, Me, Et, R1 = H; R = H, R1 = MeO) were treated with R2O2CCO2R2 (R2 = PhCH2, Bu, Et) to give N-alkylated canthin-alkaloid derivs. II in 1 step.

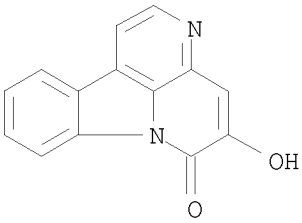
IT 15071-56-4
RL: PRP (Properties)
(NMR of)

RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



IT 64118-73-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with di-Me oxalate)

RN 64118-73-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy- (CA INDEX NAME)



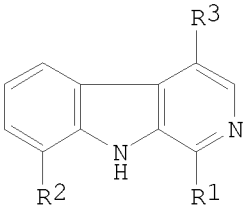
L4 ANSWER 74 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1985:191225 CAPLUS
DOCUMENT NUMBER: 102:191225
ORIGINAL REFERENCE NO.: 102:29933a,29936a
TITLE: HPLC analysis of alkaloids in Ku Mu [Picrasma

quassioides (D. Don. Benn.)]

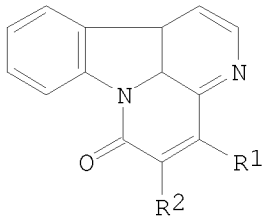
AUTHOR(S): Luo, Wenyu; Zhang, Yuzhong
CORPORATE SOURCE: Inst. Chin. Mater. Med., Acad. Tradit. Chin. Med., Peop. Rep. China

SOURCE: Yaowu Fenxi Zazhi (1985), 5(1), 11-14
CODEN: YFZADL; ISSN: 0254-1793
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

GI



I, R^1=CO_2Me, R^2=R^3=H
II, R^1=CO_2Et, R^2=R^3=H
III, R^1=CH=CH_2, R^2=R^3=MeO



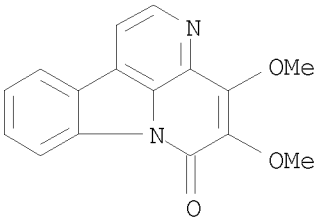
IV, R^1=R^2=H
V, R^1=R^2=MeO

AB 1-Carbomethoxy-β-carboline (I) [3464-66-2], 1-carboethoxy-β-carboline (II) [72755-19-2], 1-vinyl-4,8-dimethoxy-β-carboline (III) [65236-62-6], canthin-6-one (IV) [479-43-6] and 4,5-dimethoxy-β-canthin-6-one (V) [18110-87-7] in the stem of P. quassiuoides were determined by HPLC. Thus, .apprx.0.1-g powder was extracted with 25 mL MeOH, and the extract was subjected to anal. by HPLC with a column containing Nucleosil C18 as stationary phase [MeOH-NH4OAc (60:0.1) as mobile phase]. The peak height was linearly related to concns. of 0.1-1.0 μg. Reproducibility with a relative standard deviation of 1.75-3.24% was observed Alkaloid concns. in the stem were 0.067, 0.011, 0.008, 0.096 and 0.012%, resp.

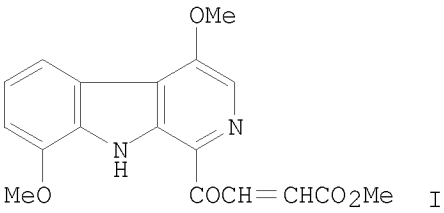
IT 18110-87-7
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in Picrasma quassioides stem, by HPLC)

RN 18110-87-7 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)

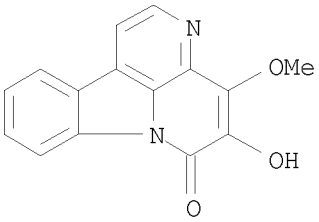


L4 ANSWER 75 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1985:59288 CAPLUS
DOCUMENT NUMBER: 102:59288
ORIGINAL REFERENCE NO.: 102:9257a,9260a
TITLE: Studies on the constituents of Picrasma quassioides Bennet. III. The alkaloidal constituents
AUTHOR(S): Ohmoto, Taichi; Koike, Kazuo
CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Funabashi, 274, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1984), 32(9), 3579-83
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

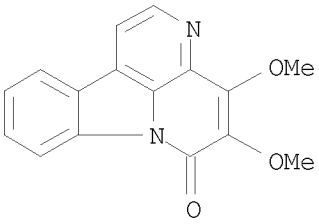


I

AB A new β-carboline alkaloid, named picrasidine E (I), was isolated from the wood of P. quassioides (Simaroubaceae), together with 7 known alkaloids, 1-methoxycarbonyl-β-carboline, 1-ethoxycarbonyl-β-carboline, 1-formyl-β-carboline, 1-hydroxymethyl-β-carboline, β-carboline-1-propionic acid, 4,5-dimethoxycanthin-6-one, and 5-hydroxy-4-methoxycanthin-6-one.
IT 18110-86-6 18110-87-7
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Picrasma quassioides)
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



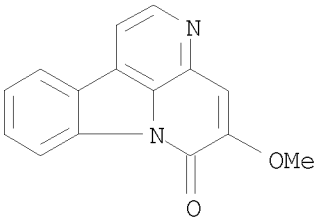
RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



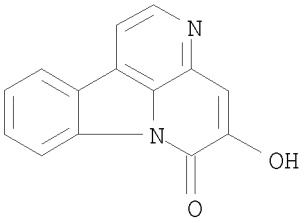
L4 ANSWER 76 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1984:507351 CAPLUS
DOCUMENT NUMBER: 101:107351
ORIGINAL REFERENCE NO.: 101:16341a,16344a
TITLE: Inhibitors of cyclic AMP phosphodiesterase in medicinal plants. V. Inhibitors of cyclic AMP phosphodiesterase in Picrasma quassioides Bennet, and inhibitory activities of related β-carboline alkaloids
AUTHOR(S): Sung, Yeol Ik; Koike, Kazuo; Nikaido, Tamotsu; Ohmoto, Taichi; Sankawa, Ushio
CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Funabashi, 274, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1984), 32(5), 1872-7
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The cAMP phosphodiesterase inhibitors present in P. quassioides were identified as 1-methoxycarbonyl-β-carboline, 4,5-dimethoxycanthin-6-one, and 5-hydroxy-4-methoxycanthin-6-one. The structure-inhibitory activity relationships were studied in 31 derivs. of β-carboline, 2 dimeric derivs. of β-carboline, and 12 derivs. of canthin-6-one. β-Carboline derivs. with a methoxycarbonyl group and canthin-6-one derivs. with a methoxy group generally had a strong inhibitory effect in cAMP phosphodiesterase.

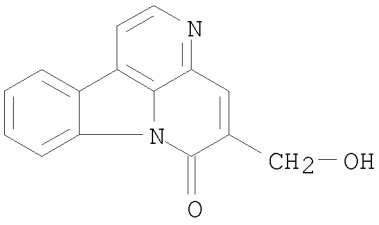
IT 15071-56-4 64118-73-6 89915-37-7
RL: BIOL (Biological study)
(cyclic AMP phosphodiesterase inhibition by, structure in relation to)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



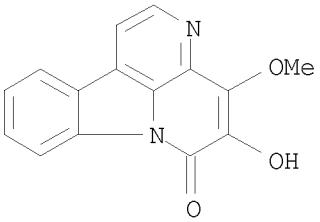
RN 64118-73-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy- (CA INDEX NAME)



RN 89915-37-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(hydroxymethyl)- (CA INDEX NAME)

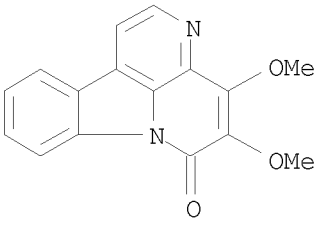


IT 18110-86-6 18110-87-7
RL: BIOL (Biological study)
(from Picrasma quassioides, cyclic AMP phosphodiesterase inhibition by)
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)

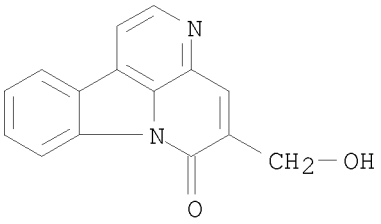


RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX

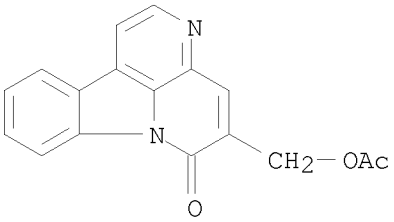
NAME)



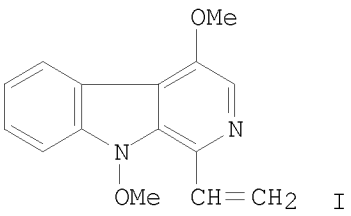
L4 ANSWER 77 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1984:188753 CAPLUS
DOCUMENT NUMBER: 100:188753
ORIGINAL REFERENCE NO.: 100:28647a,28650a
TITLE: Studies on the constituents of Ailanthus altissima Swingle. III. The alkaloidal constituents
AUTHOR(S): Ohmoto, Taichi; Koike, Kazuo
CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Funabashi, 274, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1984), 32(1), 170-3
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two new alkaloids, 1-(2-hydroxy-1-methoxy)ethyl-4-methoxy-β-carboline and 5-hydroxymethylcanthin-6-one, were isolated from the root bark of A. altissima (Simaroubaceae), together with 3 known alkaloids, β-carboline-1-propionic acid, 1-carbamoyl-β-carboline, and 1-carbomethoxy-β-carboline. The structures were elucidated on the basis of spectral and chemical evidence.
IT 89915-37-7
RL: BIOL (Biological study)
(from root bark of Ailanthus altissima)
RN 89915-37-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(hydroxymethyl)- (CA INDEX NAME)



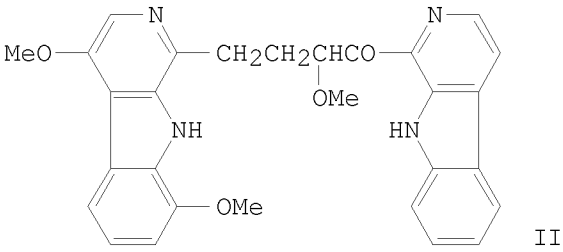
IT 89915-38-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 89915-38-8 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-[(acetyloxy)methyl]- (CA INDEX NAME)



L4 ANSWER 78 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1984:20433 CAPLUS
DOCUMENT NUMBER: 100:20433
ORIGINAL REFERENCE NO.: 100:3179a,3182a
TITLE: Studies on the constituents of Picrasma quassioides Bennet. II. On the alkaloidal constituents
AUTHOR(S): Ohmoto, Taichi; Koike, Kazuo
CORPORATE SOURCE: Sch. Pharm. Sci., Toho Univ., Funabashi, 274, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1983), 31(9), 3198-204
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

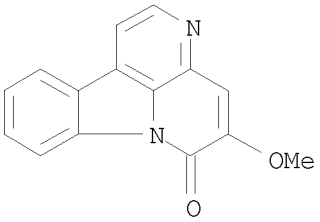


I

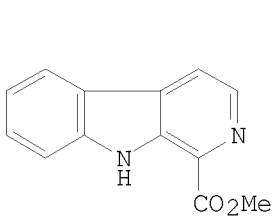


II

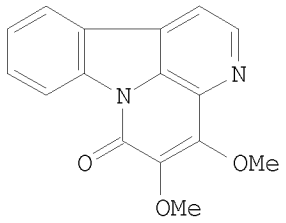
AB Two new alkaloids, 4,9-dimethoxy-1-vinyl-β-carboline (I) and β-carbolin-1-yl 3-(4,8-dimethoxy-β-carbolin-1-yl)-1-methoxypropyl ketone (II) were isolated from the wood of P. quassioides (Simaroubaceae), together with known alkaloids, 1-ethyl-4-methoxy-β-carboline, 4-methoxy-1-vinyl-β-carboline, 4,8-dimethoxy-1-vinyl-β-carboline, canthin-6-one, and 5-methoxycanthin-6-one. The structures of these alkaloids were elucidated on the basis of spectroscopic evidence.
IT 15071-56-4
RL: BIOL (Biological study)
(from Picrasma quassioides)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



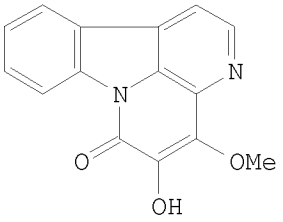
L4 ANSWER 79 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1983:536824 CAPLUS
DOCUMENT NUMBER: 99:136824
ORIGINAL REFERENCE NO.: 99:20989a,20992a
TITLE: Composition analysis of alkaloids in Ku Mu (Picrasma quassioides D. Don. Benn.)
AUTHOR(S): Luo, Shurong; Mai, Lu
CORPORATE SOURCE: Inst. Mater. Med., Chin. Acad. Med. Sci., Beijing, Peop. Rep. China
SOURCE: Yaowu Fenxi Zazhi (1983), 3(2), 90-4
CODEN: YFZADL; ISSN: 0254-1793
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
GI



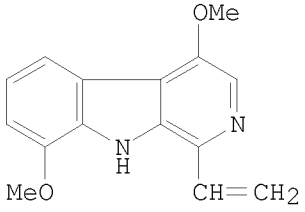
I



II



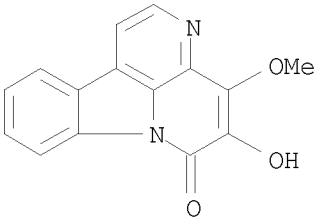
III



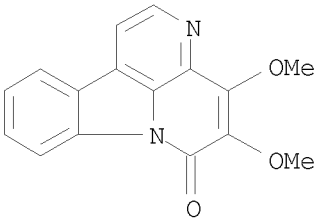
IV

AB Four alkaloid compds., 1-carbomethoxy-β-carboline (I), methylnigakinone (II; 4,5-dimethoxycanthin-6-one), nigakinone (III; 4-methoxy-5-hydroxycanthin-6-one), and 1-vinyl-4,8-dimethoxy-β-carboline (IV), were found in MeOH and CHCl3 exts. from the root, stem (both inner and outer stem), twigs, bark, and powdered whole plant of P. quassioides. These 4 alkaloids were separated by TLC on silica gel G, developed with CHCl3, and detected using a CS-910 dual wavelength scanner; the corresponding Rf values of I, II, III, and IV on the thin-layer plate were 0.45, 0.38, 0.25, and 0.16, resp. The contents of these alkaloids in P. quassioides showed marked geog. variations.

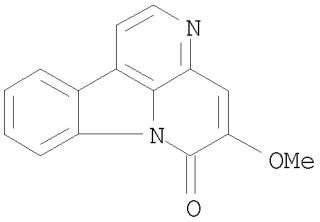
IT 18110-86-6 18110-87-7
RL: BIOL (Biological study)
(from Picrasma quassioides)
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



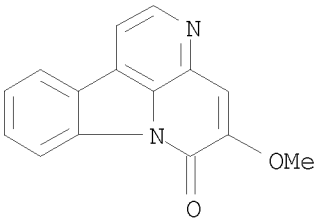
RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



L4 ANSWER 80 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1983:536143 CAPLUS
DOCUMENT NUMBER: 99:136143
ORIGINAL REFERENCE NO.: 99:20877a,20880a
TITLE: UV-mediated genotoxicity of furanoquinoline and of certain tryptophan-derived alkaloids
AUTHOR(S): Towers, G. H. N.; Abramowski, Z.
CORPORATE SOURCE: Dep. Bot., Univ. British Columbia, Vancouver, BC, V6T 2B1, Can.
SOURCE: Journal of Natural Products (1983), 46(4), 572-7
CODEN: JNPRDF; ISSN: 0163-3864
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The phototoxicity of various plant-derived furanoquinolines and tryptophan alkaloids was examined in bacteria and fungi and compared with that of 8-MOP. Photogenotoxicity tests of the compds. were also performed in CHO cells. The UV-mediated genotoxicity of the alkaloids was considerably lower than that of 8-MOP. The alkaloids were photosensitizers in addition to being phototoxic in microorganisms, and were phototoxic in CHO cells, inhibiting mitosis and causing chromosomal aberrations.
IT 15071-56-4
RL: PRP (Properties)
(phototoxicity of, in CHO cells and microorganisms)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



L4 ANSWER 81 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1983:467586 CAPLUS
DOCUMENT NUMBER: 99:67586
ORIGINAL REFERENCE NO.: 99:10465a,10468a
TITLE: Production of cytotoxic canthin-6-one alkaloids by Ailanthus altissima plant cell cultures
AUTHOR(S): Anderson, Linda A.; Harris, Ann; Phillipson, J. David
CORPORATE SOURCE: Sch. Pharm., Univ. London, London, WC1N 1AX, UK
SOURCE: Journal of Natural Products (1983), 46(3), 374-8
CODEN: JNPRDF; ISSN: 0163-3864
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A. altissima Was established as callus and cell suspension cultures. Canthin-6-one and 1-methoxycanthin-6-one were isolated by a combination of preparative TLC and preparative high-performance liquid chromatog. The 2 alkaloids were identified by their UV, mass, and 1H-NMR spectra. The combined yield of the 2 alkaloids was 1.38% of dry weight from callus and 1.27% of dry weight from cell suspensions. The cytotoxicities of canthin-6-one, 1-methoxycanthin-6-one, 5-methoxycanthin-6-one, and canthin-6-one-3-N-oxide to guinea pig ear keratinocytes were compared, and the IC50 values ranged from 1.11 to 5.76 μg/mL. There is no significant difference in activity among these 4 cytotoxic alkaloids.
IT 15071-56-4
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (cytotoxicity of)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



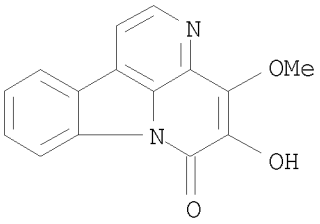
L4 ANSWER 82 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1983:204263 CAPLUS
DOCUMENT NUMBER: 98:204263
ORIGINAL REFERENCE NO.: 98:30957a,30960a
TITLE: Antimycotic substances in the crude drugs. II
AUTHOR(S): Ohmoto, Taichi; Sung, Yeol Ik
CORPORATE SOURCE: Fac. Pharm. Sci., Toho Univ., Funabashi, Japan
SOURCE: Shoyakugaku Zasshi (1982), 36(4), 307-14

CODEN: SHZAAY; ISSN: 0037-4377
DOCUMENT TYPE: Journal
LANGUAGE: English

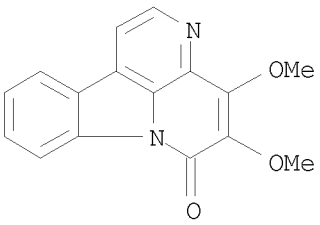
AB β-asarone [5273-86-9] Was isolated from Acorus calamus angustatus, methyleugenol [93-15-2] from Asiasarum sieboldii, d-phyllodulcin [21499-23-0] and hydrangenol [480-47-7] from Hydrangea serrata thunbergii, canthin-6-one (I) [479-43-6] from Ailanthus altissima, and Me β-carboline-1-carboxylate [3464-66-2], 1-hydroxymethyl-β-carboline [17337-22-3], 4,5-dimethoxycanthin-6-one [18110-87-7], and 5-hydroxy-4-methoxycanthin-6-one [18110-86-6] from Picrasma quassioides. I was the most potent antimycotic substance since it inhibited the growth of toxigenic fungi at low concns. (5-80 μg/mL). There was no significant difference between the antifungal activity of β- and α-asarone [2883-98-9]. Methyleugenol completely inhibited the toxin production by Aspergillus versicolor and 3 other Aspergillus strains at 100 and 200 μg/mL, resp. In general, the activity of these antimycotic substances depended on their concentration and on the fungus strain.

IT 18110-86-6 18110-87-7
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(of medicinal plants, fungicidal activity of)

RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)

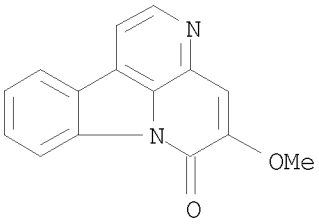


RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)

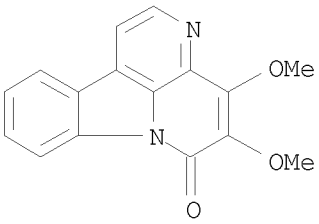


L4 ANSWER 83 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1983:50370 CAPLUS
DOCUMENT NUMBER: 98:50370
ORIGINAL REFERENCE NO.: 98:7715a,7718a
TITLE: Indole alkaloids of Odyendea gabonensis
AUTHOR(S): Forgacs, P.; Provost, J.; Touche, A.
CORPORATE SOURCE: Cent. Rech. Lab. Roger Bellon, Alfortville, 94140, Fr.

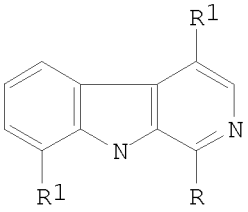
SOURCE: Planta Medica (1982), 46(3), 187-9
CODEN: PLMEAA; ISSN: 0032-0943
DOCUMENT TYPE: Journal
LANGUAGE: French
AB From the trunk bark of O. gabonensis, 6 indole alkaloids were isolated. These include canthin-6-one, 5-methoxycanthin-6-one, 4,5-dimethoxycanthin-6-one, 8-hydroxycanthin-6-one, 1-hydroxymethyl-β-carboline, and 1-carboxamide-β-carboline. This is the first report of these products from this plant.
IT 15071-56-4 18110-87-7
RL: BIOL (Biological study)
(of Odyendea gabonensis)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



L4 ANSWER 84 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1980:72679 CAPLUS
DOCUMENT NUMBER: 92:72679
ORIGINAL REFERENCE NO.: 92:11937a,11940a
TITLE: Chemical study of the alkaloids of Ku-Mu [Picrasma quassioides (D. Don) Benn.]
AUTHOR(S): Yang, Jun-Shan; Luo, Shu-Rong; Shen, Xiu-Lan; Li, Yuan-Xiang
CORPORATE SOURCE: Inst. Mater. Med., Chinese Acad. Med. Sci., Peking, Peop. Rep. China
SOURCE: Yaoxue Xuebao (1979), 14(3), 167-77
CODEN: YHHPAL; ISSN: 0513-4870
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
GI

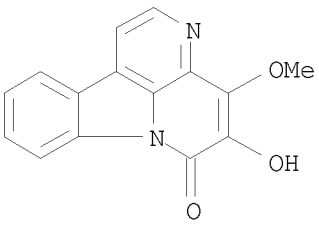


IV, R=CO_2Et, R^1=H
V, R=CHO, R^1=H
VI, R=CH:CH_2, R=OMe

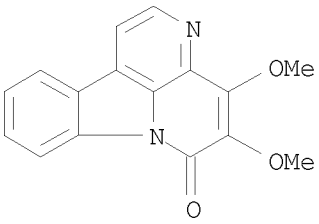
AB Silica gel and alumina column and preparative thin-layer chromatog. of the alc. extract of heartwood of the medicinal plant P. quassioides yielded 7 alkaloids. Four of these were the known compds. 1-carbomethoxy-β-carboline (I), 4,5-dimethoxycanthin-6-one (II), canthin-6-one, and 4-methoxy-5-hydroxycanthin-6-one (III), and 3 were new alkaloids named kumujian A (IV; 1-carboethoxy-β-carboline), kumujian C (V: 1-formyl-β-carboline), and kumujian G (VI; 1-vinyl-4,8-dimethoxy-β-carboline). In vitro screening tests showed I, II, III, and VI to have inhibitory activity against Staphylococcus aureus strains.

IT 18110-86-6 18110-87-7
RL: BIOL (Biological study)
(of Picrasma quassioides heartwood)

RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)

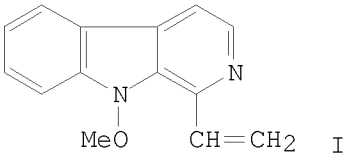


RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



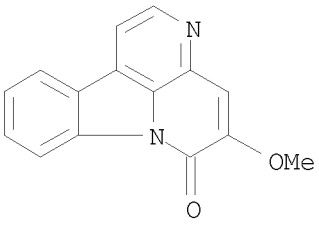
L4 ANSWER 85 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1979:520356 CAPLUS
DOCUMENT NUMBER: 91:120356
ORIGINAL REFERENCE NO.: 91:19389a,19392a

TITLE: New constituents of Picrasma excelsa. I
AUTHOR(S): Wagner, Hildebert; Nestler, Thomas; Neszmelyi, Andreas
CORPORATE SOURCE: Inst. Pharm. Arzneimittellehre, Univ. Muenchen, Munich, D-8000/2, Fed. Rep. Ger.
SOURCE: Planta Medica (1979), 36(2), 113-18
CODEN: PLMEAA; ISSN: 0032-0943
DOCUMENT TYPE: Journal
LANGUAGE: German
GI

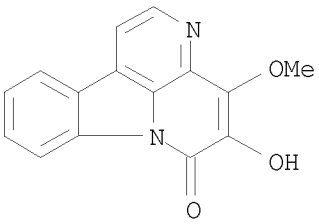


I

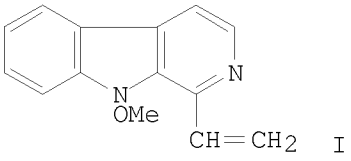
AB Canthin-6-one, 5-methoxy-canthin-6-one, 4-methoxy-5-hydroxy-canthin-6-one, scopoletin, and a new β-carboline alkaloid, N-methoxy-1-vinyl-β-carboline (I), m.p. .apprx.150°, were isolated from wood of P. excelsa. UV, IR, 1H-NMR, 13C-NMR, and mass spectral data for I are given.
IT 15071-56-4 18110-86-6
RL: BIOL (Biological study)
(from Picrasma excelsa wood)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)

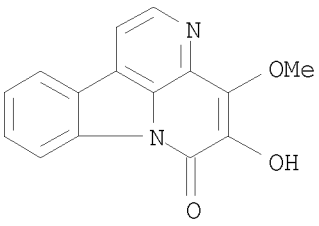


L4 ANSWER 86 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1979:104182 CAPLUS
DOCUMENT NUMBER: 90:104182
ORIGINAL REFERENCE NO.: 90:16467a,16470a
TITLE: N-methoxy-1-vinyl-β-carboline, a new alkaloid from Picrasma excelsa (Swartz)
AUTHOR(S): Wagner, Hildebert; Nestler, Thomas; Neszmelyi, Andreas
CORPORATE SOURCE: Inst. Pharm. Arzneimittellehre, Univ. Muenchen, Munich, Fed. Rep. Ger.
SOURCE: Tetrahedron Letters (1978), (31), 2777-8
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: German
GI



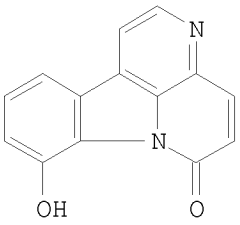
I

AB The carboline I, canthin-6-one, and 5-hydroxy-4-methoxycanthin-6-one were isolated from P. excelsa. The structure of I was determined spectroscopically.
IT 18110-86-6P
RL: PREP (Preparation)
(from Picrasma excelsa)
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



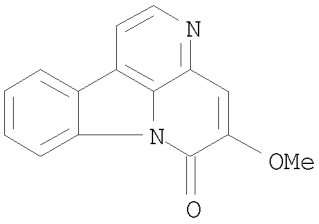
L4 ANSWER 87 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1978:439395 CAPLUS
DOCUMENT NUMBER: 89:39395
ORIGINAL REFERENCE NO.: 89:6071a,6074a
TITLE: Alkaloid constituents of Ailanthus excelsa (Simaroubaceae)
AUTHOR(S): Cordell, Geoffrey A.; Ogura, Masaru; Farnsworth, Norman R.
CORPORATE SOURCE: Coll. Pharm., Univ. Illinois Med. Cent., Chicago, IL, USA
SOURCE: Lloydia (1978), 41(2), 166-8
CODEN: LLOYA2; ISSN: 0024-5461

DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB From the root bark of A. excelsa (Simaroubaceae) 4 alkaloids were obtained. Three of these, canthin-6-one, 1-methoxycanthin-6-one, and 5-methoxycanthin-6-one are known. The fourth alkaloid is new and from anal. of spectral data it was deduced to be 8-hydroxycanthin-6-one (I).
IT 15071-56-4
RL: BIOL (Biological study)
(of Ailanthus excelsa root bark)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)

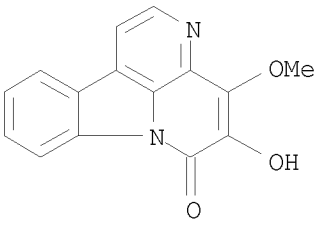


L4 ANSWER 88 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1978:110436 CAPLUS
DOCUMENT NUMBER: 88:110436
ORIGINAL REFERENCE NO.: 88:17259a,17262a
TITLE: Correlation between phylogeny, chemical constituents and pharmaceutical aspects of plants and their applications in drug research
CORPORATE SOURCE: Chinese Academy of Medical Sciences, Lab. Med. Plants, Inst. Materia Med., Peop. Rep. China
SOURCE: Zhiwu Xuebao (1977), 19(4), 257-62
CODEN: CHWHAY; ISSN: 0577-7496
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Pharmacol. properties, chemical constituents and phylogeny of Picrasma quassioides, Zanthoxylum elephantiasis, Berberis poiretii, Stephania and 33 Rhododendron species were investigated. P. quassioides contains antibacterial nigakinone [18110-86-6] and methylnigakinone [18110-87-7], and Z. elephantiasis contained antibacterial canthin-6-one [479-43-6]. B. poirettii roots contained coptisine [3486-66-6], an antimicrobial agent previously found in Coptis roots. Cepharanthine [481-49-2] isolated from Stephania showed leukocyte-increasing activity. Farrerol [24211-30-1], astragalin

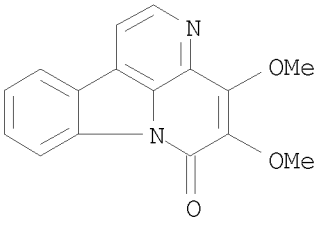
[480-10-4], kaempferol [520-18-3], and scopoletin [92-61-5] from Rhododendron had expectorant activity, and hyperin [482-36-0] and quercetin [117-39-5] from Rhododendron are antitussives.

IT 18110-86-6 18110-87-7
RL: BIOL (Biological study)
(of Picrasma quassioides, pharmacol. of)

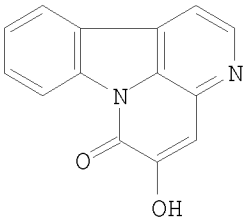
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



L4 ANSWER 89 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1977:514580 CAPLUS
DOCUMENT NUMBER: 87:114580
ORIGINAL REFERENCE NO.: 87:18185a,18188a
TITLE: 5-Hydroxycanthin-6-one from Simarouba amara
AUTHOR(S): Lassak, Erich V.; Polonsky, Judith; Jacquemin, Henri
CORPORATE SOURCE: Inst. Chim. Subst. Nat., Gif-sur-Yvette, Fr.
SOURCE: Phytochemistry (Elsevier) (1977), 16(7), 1126-7
CODEN: PYTCAS; ISSN: 0031-9422
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



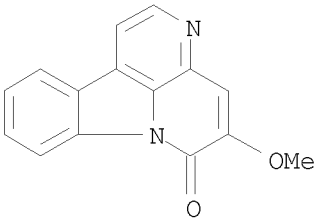
I

AB The alkaloid 5-hyroxycanthin-6-one (I) was isolated from S. amara root bark and the compound was identified by derivative preparation and comparison with an authentic methoxy derivative Phys. properties are given.

IT 15071-56-4
RL: BIOL (Biological study)
(5-Methoxycanthin-6-one)

RN 15071-56-4 CAPLUS

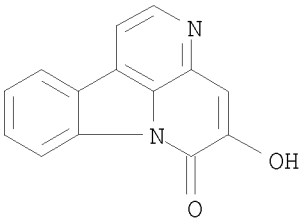
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



IT 64118-73-6
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Simarouba amara)

RN 64118-73-6 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy- (CA INDEX NAME)



L4 ANSWER 90 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1975:171268 CAPLUS

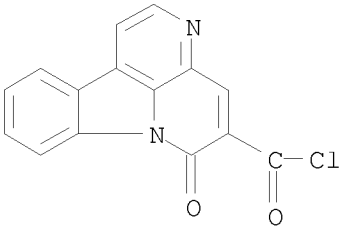
DOCUMENT NUMBER: 82:171268

ORIGINAL REFERENCE NO.: 82:27393a,27396a

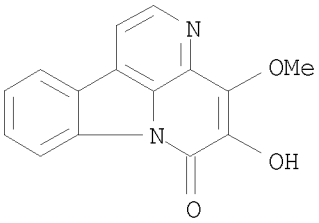
TITLE: Antimicrobial agents from higher plants. Synthesis in the canthin-6-one (6H-indolo[3,2,1-de][1,5]naphthyridin-6-one) series

AUTHOR(S): Mitscher, Lester A.; Shipchandler, Mohammed;

Showalter, H. D. Hollis; Bathala, Mohinder S.
CORPORATE SOURCE: Div. Nat. Prod. Chem., Ohio State Univ., Columbus, OH, USA
SOURCE: Heterocycles (1975), 3(1), 7-14
CODEN: HTCYAM; ISSN: 0385-5414
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Canthin-6-one (I; R = R1 = H) was prepared in 15% yield from pyridoindole II (R2 = MeOCH2) by successive hydrolysis and oxidation with MnO2 to II (R2 = CHO), which was condensed with CH2(CO2H)2. Condensation of II (R = CHO) with CH2(CO2Me)2 followed by acid hydrolysis gave I (R = CO2H, R1 = H) which was decarboxylated by heating at 80° with Cu powder in anhydrous pyridine to give I (R = R1 = H) in 19% overall yield. Amides I [R = CONH2, CONEt2, CONHCHMe2, piperidinocarbonyl, CONHC6H3(OMe)2-2,4, R1 = H] were prepared from I (R = COCl, R1 = H). Treating II (R2 = CH2OMe) with BuLi and MeO2CCO2Me followed by methylation using CH2N2 gave I (R = R1 = MeO).
IT 55854-63-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation of)
RN 55854-63-2 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridine-5-carbonyl chloride, 6-oxo- (CA INDEX NAME)

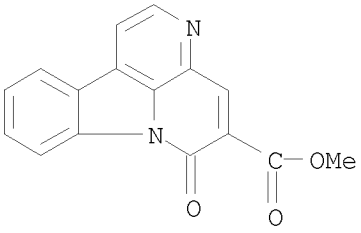


IT 18110-86-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(methylation of)
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)

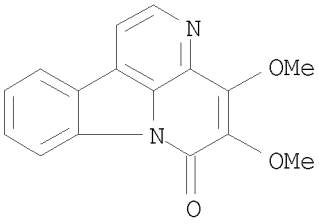


IT 55854-61-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
RN 55854-61-0 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridine-5-carboxylic acid, 6-oxo-, methyl

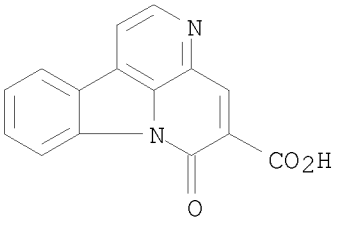
ester (CA INDEX NAME)



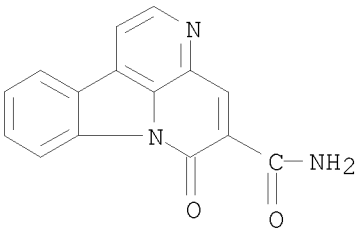
IT 18110-87-7P 55854-62-1P 55854-64-3P
55854-65-4P 55854-66-5P 55854-67-6P
55854-68-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



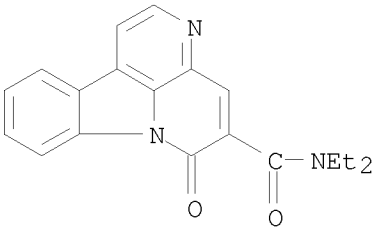
RN 55854-62-1 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridine-5-carboxylic acid, 6-oxo- (CA INDEX NAME)



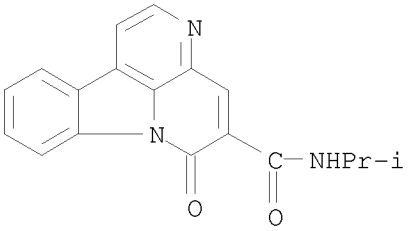
RN 55854-64-3 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridine-5-carboxamide, 6-oxo- (CA INDEX NAME)



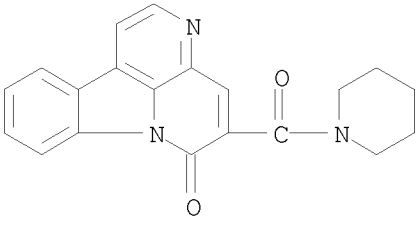
RN 55854-65-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridine-5-carboxamide, N,N-diethyl-6-oxo- (CA INDEX NAME)



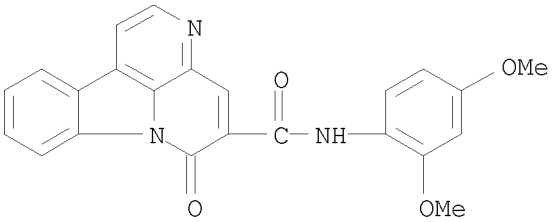
RN 55854-66-5 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridine-5-carboxamide, N-(1-methylethyl)-6-oxo- (CA INDEX NAME)



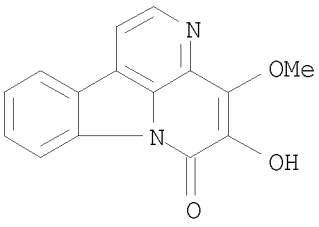
RN 55854-67-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(1-piperidinylcarbonyl)- (CA INDEX NAME)



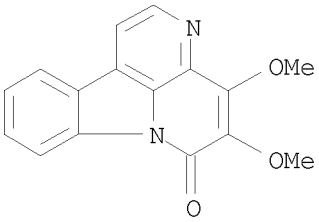
RN 55854-68-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridine-5-carboxamide, N-(2,4-dimethoxyphenyl)-6-oxo- (CA INDEX NAME)



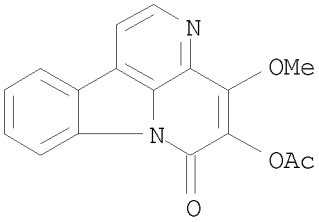
L4 ANSWER 91 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1973:418922 CAPLUS
DOCUMENT NUMBER: 79:18922
ORIGINAL REFERENCE NO.: 79:3047a,3050a
TITLE: Structure of a new β-carboline alkaloid from Picrasma ailanthoides
AUTHOR(S): Kondo, Yoshikazu; Takemoto, Tsunematsu
CORPORATE SOURCE: Pharm. Inst., Tohoku Univ., Sendai, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1973), 21(4), 837-9
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB A new alkaloid, 1-hydroxymethyl-β-carboline (I) has been isolated from the stems of Picrasma ailanthoides (Simaroubaceae) along with methyl β-carboline-1-carboxylate. Structure of I was established by phys. and chemical means.
IT 18110-86-6P 18110-87-7P
RL: PREP (Preparation)
(from Picrasma ailanthoides)
RN 18110-86-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



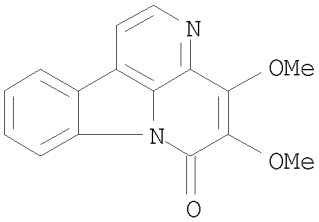
IT 18211-86-4P 42337-53-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 18211-86-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(acetyloxy)-4-methoxy- (CA INDEX NAME)



RN 42337-53-1 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy-, compd. with 2,4,6-trinitrophenol (1:1) (CA INDEX NAME)

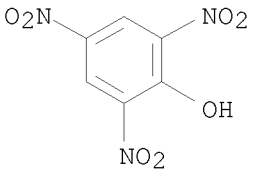
CM 1

CRN 18110-87-7
CMF C16 H12 N2 O3

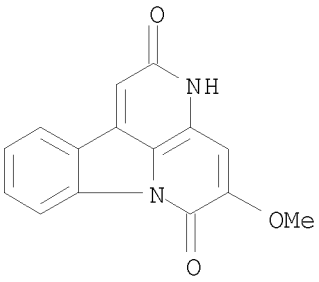


CM 2

CRN 88-89-1
CMF C6 H3 N3 O7



L4 ANSWER 92 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1972:140585 CAPLUS
DOCUMENT NUMBER: 76:140585
ORIGINAL REFERENCE NO.: 76:22820h,22821a
TITLE: Indacanthinone, a crystalline chemical component from the wood of Samadera indica
AUTHOR(S): Iyer, V. Subramoni; Rangaswami, S.
CORPORATE SOURCE: Dep. Chem., Univ. Delhi, Delhi, India
SOURCE: Current Science (1972), 41(4), 140-1
CODEN: CUSCAM; ISSN: 0011-3891
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB The structure of indacanthinone (I), was determined by chemical, and NMR and uv spectral data. I with POCl3 gave a mono-Cl derivative by replacement of the enol OH group; with Br in CHCl3 I gave a mono-Br derivative
IT 35817-57-3P
RL: PREP (Preparation)
(from Samadera indica)
RN 35817-57-3 CAPLUS
CN 3H-Indolo[3,2,1-de][1,5]naphthyridine-2,6-dione, 5-methoxy- (CA INDEX NAME)



L4 ANSWER 93 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1968:87441 CAPLUS
DOCUMENT NUMBER: 68:87441
ORIGINAL REFERENCE NO.: 68:16879a,16882a
TITLE: Standardization of crude drugs. XIX. Constituents of Picrasma ailanthoides. 1. The structure of nigakinone
AUTHOR(S): Kimura, Yushiro; Takido, Michio; Koizumi, Seitaro
CORPORATE SOURCE: Nihon Univ., Tokyo, Japan
SOURCE: Yakugaku Zasshi (1967), 87(11), 1371-3
CODEN: YKKZAJ; ISSN: 0031-6903
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

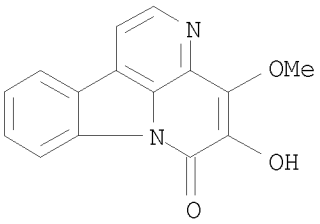
GI For diagram(s), see printed CA Issue.

AB Yellow heartwood (2 kg.) of P.ailanthoides is extracted with 8 vols. warm MeOH, the extract concentrated in vacuo, filtered, and from the filtrate are obtained 3.3 g. nigakinone (I) and small amount of 4,5-dimethoxycanthin-6-one (II), m. 145-6°. I is subjected to liquid chromatog. using CaHPO4.2H2O as an adsorbent and CHCl3 and C6H6 as developers followed by recrystn. from MeOH to give purified I, m. 224-5° (MeOH), monoacetate m. 193-5°, monobenzoate m. 223-4°, Me ether m. 146-7° (identical with II). Heating of 100 mg. I with 20 ml. 48% HBr at 160-80° for 5 hrs. gives nornigakinone, m. >300°, di-Me ether m. 146-7°, dibenzoate m. 253°. Oxidation of 100 mg. I with KMnO4 in Me2CO at room temperature for 18 hrs. gives 30 mg. Me β-carboline-1-carboxylate (III), m. 168-8.5°. Thus, the structure for I was established.

IT 18110-86-6, Nigakinone
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkaloid from Picrasma ailanthoides)

RN 18110-86-6 CAPLUS

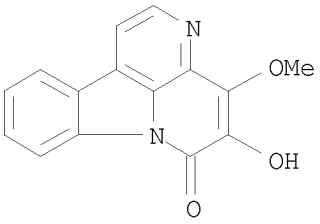
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)



IT 18110-86-6P 18110-87-7P 18110-88-8P
18110-89-9P 18110-90-2P 18211-86-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

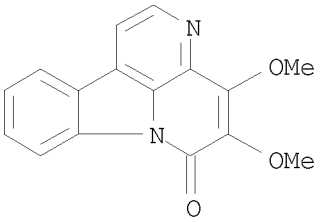
RN 18110-86-6 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-methoxy- (CA INDEX NAME)

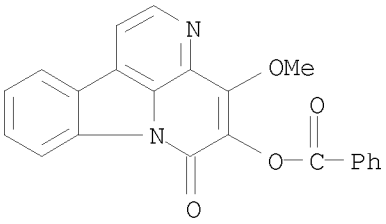


RN 18110-87-7 CAPLUS

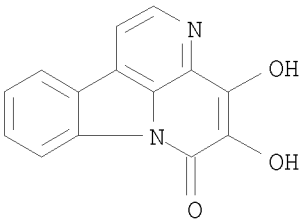
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



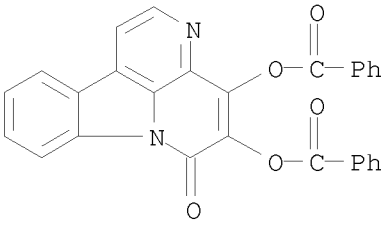
RN 18110-88-8 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(benzoyloxy)-4-methoxy- (CA INDEX NAME)



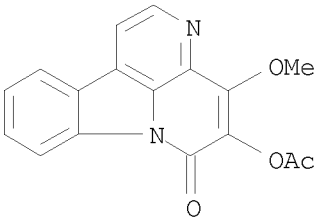
RN 18110-89-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dihydroxy- (CA INDEX NAME)



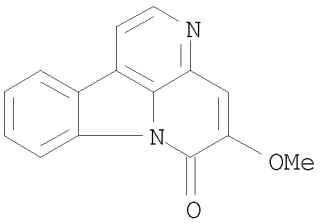
RN 18110-90-2 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-bis(benzoyloxy)- (CA INDEX NAME)



RN 18211-86-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(acetyloxy)-4-methoxy- (CA INDEX NAME)

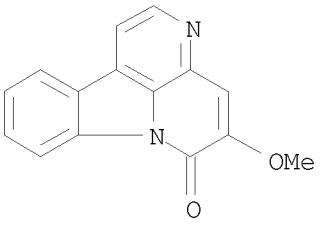


L4 ANSWER 94 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1968:886 CAPLUS
DOCUMENT NUMBER: 68:886
ORIGINAL REFERENCE NO.: 68:147a,150a
TITLE: Alkaloids of Zanthoxylum caribaeum
AUTHOR(S): Della Casa, Deanna; Sojo C., Maria
CORPORATE SOURCE: Univ. Central Venezuela, Caracas, Venez.
SOURCE: Journal of the Chemical Society [Section] C: Organic (1967), (21), 2155-6
CODEN: JSOOAX; ISSN: 0022-4952
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 5-Methoxycanthin-6-one and N-methylisocorydine were isolated from the bark of Z. caribaeum.
IT 15071-56-4
RL: BIOL (Biological study)
(from Zanthoxylum caribaeum)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



L4 ANSWER 95 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1967:73247 CAPLUS
DOCUMENT NUMBER: 66:73247
ORIGINAL REFERENCE NO.: 66:13715a,13718a
TITLE: Isolation and identification of three alkaloids from the bark of Zanthoxylum elephantiasis
AUTHOR(S): Awad, Albert T.; Beal, Jack L.; Talapatra, Sunil K.; Cava, Michael P.
CORPORATE SOURCE: Ohio State Univ., Columbus, OH, USA
SOURCE: Journal of Pharmaceutical Sciences (1967), 56(2), 279-81
CODEN: JPMSAE; ISSN: 0022-3549
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The bark of Z. elephantiasis contained 3 major alkaloids which were identified as 6-canthinone, 5-methoxy-6-canthinone, and laurifoline.

IT 15071-56-4
RL: BIOL (Biological study)
(in Zanthoxylum elephantiasis)
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



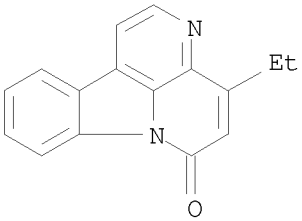
L4 ANSWER 96 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1966:75936 CAPLUS
DOCUMENT NUMBER: 64:75936
ORIGINAL REFERENCE NO.: 64:14234b-h,14235a-c
TITLE: Synthesis of tubofiavine, 4-ethylcanthin-6-one, and canthin-6-one
AUTHOR(S): Rosenkranz, Juergen Hans; Botyos, Georgene; Sehmid, Hans
CORPORATE SOURCE: Univ. Zurich, Switz.
SOURCE: Justus Liebigs Annalen der Chemie (1966), 691, 159-64
CODEN: JLACBF; ISSN: 0075-4617
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 64:75936
GI For diagram(s), see printed CA Issue.
AB [RCan values are relative to canthin-6-one (I)]. (±)-Tryptophan (5.3 g.) dissolved in 50 cc. 2N K_2CO_3 by heating, the solution cooled to 25°, 3 g. (±)-ethylsuccinic anhydride added dropwise during 15 min. with stirring, after 15 min. the mixture adjusted to pH 1 with HCl and extracted with Et_2O, the extract washed with 2N HCl and H_2O, dried, and evaporated (all evapns. made in a rotary evaporator at 40°/12 mm.), the residual oil kept several days at -4°, and cold Et_2O added gave 590 mg. II, m. 181-3° (MeOH-Et_2O); the mother liquor evaporated and the residue dried in vacuo gave 4.48 g. noneryst. product, consisting chiefly of IIa. To a mixture of 20 g. polyphosphoric acid (PPA), 6 g. finely powdered V_2O_5, and 3 cc. $POCl_3$ was added 500 mg. II at 115° with stirring, after 45 min. the mixture decomposed with ice H_2O, treated with concentrated NH_3 with cooling, and extracted with $CHCl_3$. The extract was evaporated, the residue in 4:1 C_6H_6-Me_2CO filtered off on a small column of silica gel, and the eluate evaporated to give 95 mg. III, m. 176° (MeOH), identical (mixed m.p. and ir spectrum) with authentic III; in addition to III, a small amount of its 4,5-dihydro derivative (IV), RCan 1.55, was also formed. III (47.1 mg.) in 5 cc. EtOH hydrogenated over 50 mg. 10% Pd-C at 22° and 704 mm. (after 22 hrs., after absorption of 44.2 cc. H, absorption ceased) gave IV, m. 74° (Et_2O-hexane). IV (230 mg.) in 25 cc. 4N HCl stirred 45 min. at 45° with 1 g. Zn dust, the solids filtered off and washed with H_2O until no light blue fluorescence was observed in the washings, the combined filtrate and washings concentrated and treated with excess $NaHCO_3$, and the product isolated with $CHCl_3$ and chromatographed on silica gel with

9:1 C6H6-Me2CO gave after distillation at 150-60° (air bath)/0.01 mm. 133 mg. V, m. 72-3° (Et2O-hexane). V was also obtainable by direct reduction of III with Zn and HCl. V (120 mg.) in 5 cc. PhMe refluxed 1 hr. with 250 mg. SeO2, 50 mg. SeO2 added, the mixture refluxed 1 hr. more, the supernatant solution decanted from residue, the latter washed with Me2CO, and the combined organic solns. filtered through 5 g. neutral Al2O3 and evaporated gave 71 mg. III, m. 176° (MeOH). Strongly enriched, powdered IIa (4.4 g.) added to a mixture of 160 g. PPA, 50 g. finely powdered V2O5, and 20 g. POCl3 at 115° with stirring and after 45 min. the mixture worked up like II gave 353 g. crude product, which hydrogenated in EtOH over 350 mg. 10% Pd-C .apprx.14 hrs. gave after chromatography on silica gel with 9:1 C6H6-Me2CO first 73 mg. VI, then 102 mg. mixed fractions, and finally 73 mg. VII, m. 105-7° (Et2O-hexane), RCan 1.25. VII (44 mg.) reduced with Zn and HCl like IV gave after chromatography and distillation at 160-70° (air bath)/0.01 mm. 24 mg. 5-ethyl-4,5-dihydrocanthine (VIII), oil, RCan 0.92; VIII.HCl showed a strong pale blue fluorescence in solution VIII (20 mg.) dehydrogenated (3 hrs.) with 200 mg. SeO2 in 5 cc. PhMe like III, after work-up the solution filtered through 5 g. neutral Al2O3, the column washed with Me2CO and eluted with MeOH, the eluate filtered through a small column of Dowex 50W-X2 (H+ form), the column washed with MeOH and H2O and eluted with concentrated HCl, the eluate evaporated, the residue treated with aqueous NaHCO3, and the product isolated with CHCl3 and sublimed at 160-70°/0.01 mm. gave tuboflavine (IX), m. 216°(transition at 208°) (Me2CO-hexane), identical (mixed m.p., ir and uv spectra, and thin layer chromatographic behavior) with natural IX (Kump, et al., CA 59, 10146d), which was assigned the structure shown and not that of IXa on the basis of its N.M.R. spectrum. To a hot (110) suspension of 4.7 g. (±)-tryptophan in 150 cc. dry C5H5N was added during 15 min. 2 g. succinic anhydride with stirring, after 1.5 hrs. the resulting solution evaporated, the residue dissolved in 200 cc. H2O, the solution adjusted to pH 1 with concentrated HCl and extracted (Soxhlet) with Et2O, and the extract concentrated and let stand at -4° for a long time to give 4.28 g. (±)-X, hygroscopic needles, m. 163-4° (Me2CO-Et2O). To a hot (115°) mixture of 60 g. PPA, 18 g. finely powdered V2O5, and 6 cc. POCl3 was added 1.38 g. X with stirring, after 45 min. the mixture worked up like III, the crude product in 6:1 C6H6-Me2CO filtered through silica gel, and the eluate evaporated gave 175 mg. mixture (thin layer chromatography) of I, RCan 1.0, and XI, RCan 0.66, in a ratio of .apprx.4:1; 3 recrystns. from MeOH, followed by sublimation at 150°/0.01 mm., gave pure I, m. 161-1.5° identical (mixed m.p., ir and uv spectra, and thin layer chromatographic behavior) with natural I. Pertinent ir, uv, and N.M.R. data were given.

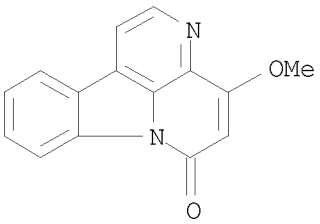
IT 5171-49-3P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-ethyl-
RL: PREP (Preparation)
(preparation of)

RN 5171-49-3 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-ethyl- (CA INDEX NAME)

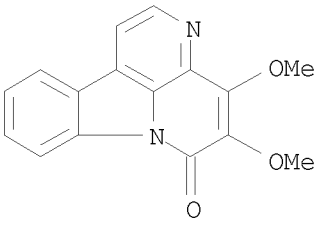


L4 ANSWER 97 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1966:29194 CAPLUS
DOCUMENT NUMBER: 64:29194
ORIGINAL REFERENCE NO.: 64:5446d-e
TITLE: Hawaiian plant studies. XIII. Isolation of a canthinone from a member of the family Amaranthaceae
AUTHOR(S): Scheuer, Paul J.; Pattabhiraman, Tammanur R.
CORPORATE SOURCE: Univ. of Hawaii, Honolulu
SOURCE: Lloydia (1965), 28(2), 95-100
CODEN: LLOYA2; ISSN: 0024-5461
DOCUMENT TYPE: Journal
LANGUAGE: English
AB cf. CA 59, 14039h; 62, 14418g. 4-Methoxy-6-canthinone was isolated from stem and root bark of Charpentiera obovata. It had uv maximum at 288, 297.5, 350, and 366 mμ, and m. at 220-1°. It was also synthesized. Similar compds. have been found only in Rutaceae and Simaroubaceae.
IT 5023-08-5, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-methoxy- (from Charpentiera obovata)
RN 5023-08-5 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-methoxy- (CA INDEX NAME)



L4 ANSWER 98 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1962:73445 CAPLUS
DOCUMENT NUMBER: 56:73445
ORIGINAL REFERENCE NO.: 56:14249b-d
TITLE: 4,5-Dimethoxycanthin-6-one and 2,6-dimethoxy-p-benzoquinone from Picrasma ailanthoides
AUTHOR(S): Inamoto, Naoki; Masuda, Shozo; Shimamura, Osamu; Tsuyuki, Takahiko
CORPORATE SOURCE: Univ. Tokyo
SOURCE: Bulletin of the Chemical Society of Japan (1961), 34, 888-9
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A MeOH extract of the wood was diluted with H2O, filtered to remove tar, extracted with C6H6, and the C6H6 evaporated to give a residue which was chromatographed on Al2O3 in C6H6 to give 4,5-dimethoxycanthin-6-one (I), m. 147.3-7.5° (MeOH), approx. 0.01% of dried material. Oxidation of I with KMnO4 in Me2CO at 20° gave Me β-carboline-1-carboxylate, m. 164-5°. A hot aqueous extract of the wood was treated with Pb(OAc)2 and then C; the C was extracted with CHCl3, the solvent evaporated, and the residue crystallized from MeOH to give 0.005% 2,6-dimethoxy-p-benzoquinone.
IT 18110-87-7, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one,

4,5-dimethoxy-
(from Picrasma ailanthoides)
RN 18110-87-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dimethoxy- (CA INDEX NAME)



L4 ANSWER 99 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1961:38150 CAPLUS
DOCUMENT NUMBER: 55:38150
ORIGINAL REFERENCE NO.: 55:7458h-i,7459a-i,7460a-f
TITLE: The alkaloids of Hunteria eburnea. I. The structures of eburnamine, isoburnamine, eburnamenine, and eburnamonine, and a synthesis of dl-eburnamonine
AUTHOR(S): Bartlett, M. F.; Taylor, W. I.
CORPORATE SOURCE: C I B A Pharm. Prods., Inc., Summit, NJ
SOURCE: Journal of the American Chemical Society (1960), 82, 5941-6
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
OTHER SOURCE(S): CASREACT 55:38150
GI For diagram(s), see printed CA Issue.
AB Eburnamine (I) and isoeburnamine (II) were interconvertible diastereoisomeric carbinolamines that had the structures III (equatorial OH) and III (axial OH), resp., and that gave upon oxidation the N-acylindole, eburnamonine (IV). Eburnamenine (V) was produced from I and II by a mild acid-catalyzed dehydration. The reduction of IV yielded I and II as well as the dihydro derivative (VI) of V. The Se dehydrogenation of IV yielded 4-ethyl-4-propyl-4,5-dihydrocanthin-6-one (VII) and 4-ethyl- (VIII) and 4-propylcanthin-6-one (IX). A general method was developed for the synthesis of VIII and IX. The Wolf-Kischner reduction of I yielded d-1,2,3,4,6,7,12,12b-octahydroindolo[2,3-a]quinolizine (X). A simple efficient 7-step synthesis of IV was described. The attempted formation of the picrates of I or II in EtOH gave the picrate of O-ethyleburnamine (XI), m. 152-66° with bubbling, resolidified and rem. 186°; the picrate gave the free XI, m. 147-8° (EtOH), [α]D 64° (all rotations were measured in CHCl3 at 25 ± 2°). XI with MeI gave XI.MeI, m. 262° (decomposition). I or II (100 mg.) heated 0.5 hr. on the steam bath in 2 cc. AcOH, and the free base treated with picric acid gave the picrate of V, m. 186 or 196° (EtOH, depending on the conditions of crystallization); V.MeI m. 274° (decomposition) (H2O). I or II with MeI gave only V.MeI. I or II refluxed several hrs. with picric acid and EtOH gave nearly 100% picrate of V, m. 186 or 196°. Picrate of XI heated in vacuo at 160° until the bubbling ceased and resolidification was complete gave the picrate of V, m. 186°. V (870 mg.) in EtOH hydrogenated over 500 mg. prereduced PtO2, filtered, and treated with 0.9 g. picric acid gave 1.17 g. picrate of VI, m. 210-13°, which with base yielded VI, m. 89-91°

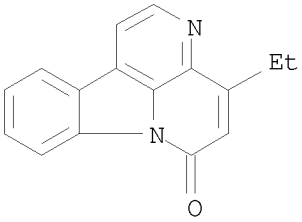
(aqueous MeOH), [α]D -1.5 ± 1°, pK'a 6.9. I (2.77 g.) in 35 cc. C5H5N added slowly with cooling to 2.8 g. CrO3 in 35 cc. C5H5N, kept 10 min., filtered through Al2O3 with CH2Cl2, and evaporated gave 2.76 g. IV, m. 173-4° (EtOH). II (140 mg.) gave similarly 90 mg. IV, m. 175-6°. IV (490 mg.) in 50 cc. Et2O reduced with 50 mg. LiAlH4, and the product chromatographed on Al2O3 gave successively VI, II, and I. I (775 mg.), 500 mg. KOH, 5 cc. N2H4.H2O, and 15 cc. (CH2OH)2 heated 2 hrs. at 130°, and then during 2 hrs. to 260°, cooled, and extracted with Et2O yielded 830 mg. X, m. 106° (hexane), [α]D 93°. X (135 mg.) and 100 mg. Pd black heated 3 days in an evacuated sealed tube with 200 mg. maleic acid in H2O, basified, and extracted with CH2Cl2 yielded 35 mg. crude anhydronium compound, which reduced with NaBH4 in MeOH gave dl-X, m. 132°, [α]D 0.6 ± 2°.
IV (1.23 g.) and 5.0 g. Se heated 12 hrs. in an evacuated tube at 340-50°, powdered, and extracted with CH2Cl2-MeOH, and the residue (1.09 g.) from the extract chromatographed on Al2O3 yielded 340 mg. VII [picrate, m. 199-200° (EtOH); in one run obtained as a dihydrate, m. 162° and 203°], 25 mg. oil, 193 mg. IX, m. 128-9° (sublimed), and 125 mg. VIII, m. 170-2° (hexane). The picrate of VII, decomposed on Al2O3, gave oily VII, [α]D 36° pKa 3.0. VII (115 mg.) and 220 mg. 52% NaH dispersion in mineral oil refluxed 6 hrs. in PhMe, treated with an addnl. 150 mg. NaH dispersion, refluxed 16 hrs., and worked up, and the crude product chromatographed on Al2O3 gave 24 mg. l-isomer of 1-(1-ethylbutyl)-β-carboline (XII), m. 142-3°, [α]D -7°. V (430 mg.) and 1 mole equivalent OsO4 in 5 cc. C5H5N kept 16 hrs. at room temperature and evaporated to dryness, and the residue in H2O treated with excess SO2 and extracted with Et2O gave 400 mg. amorphous eburnamenine glycol (XIII), m. 100-20°. XIII (100 mg.) treated 20 min. with 100 mg. CrO3 in C5H5N gave hydroxyeburnamonine (XIV), m. 192-4° (EtOH). XIV was readily hydrolyzed to an amino acid which was recycled by hot dilute acids or CH2-N2-Et2O. VII (320 mg.) reduced with 320 mg. LiAlH4 in 30 cc. Et2O, and the product chromatographed on Al2O3 gave 4-ethyl-4-propylcanthine, m. 103-4° (hexane). IV (1.18 g.) in 80 cc. MeOH and 12 cc. 5N NaOH refluxed 24 hrs., diluted with H2O, washed with CH2Cl2, adjusted with AcOH to pH 5-6, and extracted with CH2Cl2 yielded 1.15 g. eburnamoninic acid (XV), m. 253° (in vacuo). XV (43 mg.) in 4 cc. 1:1 MeOH-CH2Cl2 with excess CH2N2-Et2O gave 29 mg. Me ester (XVI) of XV, m. 138-9° (hexane). XV in MeOH with CH2N2-Et2O gave only IV. The reduction of XV or XVI with LiAlH4 gave a mixture of I and II. Tryptamine (XVII) and 600 mg. Et2C(CHO)(CH2)2CO2H heated 1 hr. at 120° at atmospheric pressure and 1 hr. in vacuo and triturated with Et2O yielded 1,1-diethyl-4-oxo-1,2,3,4,6,7,12β,12b-octahydroindolo[2,3-a]quinolizine (XVIII), m. 291° (in vacuo). XVIII reduced with LiAlH4 yielded dl-X, m. 132°. EtPrCHCOCl (0.92 g.) and 1 g. XVII in C5H5N heated 10 min. on the steam bath, concentrated, and worked up, the crude amide (1.3 g.), m. 120°, refluxed 3 hrs. in POCl3, and the resulting crude dihydro-β-carboline (750 mg.) dehydrogenated with Se at 360° during 20 min. in a sealed tube gave 550 mg. XII, m. 144-5° (Et2O-hexane). BuLi added with stirring under N to 1.17 g. harman in 200 cc. dry Et2O, the mixture treated after 5 hrs. with 940 mg. (CO2Et)2 in 10 cc. dry Et2O, stirred overnight, treated with 20 cc. H2O, and filtered, and the residual Li salt (600 mg.) triturated with aqueous AcOH gave 5-hydroxycanthin-6-one (XIX), m. 258-9° (decomposition) (CH2Cl2-EtOH). XIX in CH2Cl2 containing excess CH2N2 kept overnight yielded 100% 5-methoxycanthin-6-one, 238°. In the same manner as described for the preparation of XII, 2 g. butyl-β-carboline, m. 171-2°, gave 1.43 g. 5-hydroxy-4-propylcanthin-6-one (XX), which with Ac2O gave the acetate (XXI), m. 201-2°. XXI (230 mg.) in 25 cc. refluxing AcOH treated periodically with Zn dust, and the product (175 mg.) heated 40

min. in vacuo with Se gave IX, m. 132-3° (Et2O). Propyl-β-carboline (2 g.) yielded similarly 800 mg. 5-hydroxy-4-ethylcanthin-6-one, m. 230-1° (CH2Cl2-EtOH), which refluxed with Ac2O yielded the acetate (XXII), m. 211-12° (Ac2O). XXII (100 mg.) in AcOH reduced with Zn dust, and the crude product (90 mg.) heated 20 min. in vacuo at 360° with Se gave 20 mg. VIII, m. 179-80° (sublimed in vacuo). 1-Isobutyl-β-carboline (655 mg.), m. 200°, was converted in the usual manner to 300 mg. 4-iso-Pr analog of XX and its acetate, m. 196-7°, which reduced and dehydrogenated in the usual manner yielded 10 mg. 4-iso-Pr analog of IX, m. 118° (C6H6-hexane). NaOH (200 g.) in 250 cc. H2O added dropwise during 1.5 hrs. with stirring to 113 g. p-EtC6H4OH in 162 cc. CHCl3 at 60°, cooled, filtered, concentrated, and steam distilled gave 7.2 g. 4-dichloromethyl-4-ethylcyclohexadienone (XXIII), m. 61-2°. XXIII hydrogenated over Pd-C gave 4-dichloromethyl-4-ethylcyclohexanone (XXIV), m. 58° (hexane). XXIV (7 g.) in 25 cc. concentrated HNO3 refluxed 10 min. gave 3 g. HO2CCH2CHEtCH(CHCl2)CH2CO2H (XXV), m. 125°. XXV (500 mg.) and 10 cc. H2O heated 3 hrs. at 210° in a sealed tube gave 450 mg. HO2CCH2CHEtCH(CHO)CH2CO2H (XXVI), m. 102-3° (Et2O-CH2Cl2). XXVI (126 mg.) and 100 mg. XVII in 0.5 cc. AcOH heated 12 hrs. at 100°, evaporated, heated 15 min. at 100° in 5 cc. polyphosphoric acid, and diluted with H2O gave 57 mg. dl-eburnamonine lactam (XXVII), m. 215°. XVII (35 mg.) and 150 mg. LiAlH4 in 20 cc. Et2O refluxed 1 hr. and worked up, and the crude product (30 mg.) treated 5 min. with 30 mg. CrO3 in 5 cc. C5H5N and chromatographed from CH2Cl2 on Al2O3 yielded 20 mg. dl-IV, m. 203-4° (EtOH).

IT 5171-49-3P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-ethyl-
15071-56-4P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one,
5-methoxy- 64118-73-6P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-
one, 5-hydroxy- 109513-68-0P,
6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-ethyl-5-hydroxy-, acetate
109597-65-1P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one,
4-propyl- 109597-66-2P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-
one, 4-isopropyl- 109602-72-4P,
6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-propyl-
109602-73-5P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one,
5-hydroxy-4-isopropyl- 109818-15-7P,
6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-isopropyl-,
acetate 109818-17-9P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-
one, 5-hydroxy-4-propyl-, acetate 856784-38-8P,
6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-ethyl-5-hydroxy-
RL: PREP (Preparation)
(preparation of)

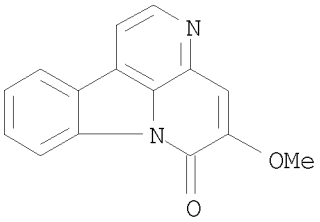
RN 5171-49-3 CAPLUS

CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-ethyl- (CA INDEX NAME)

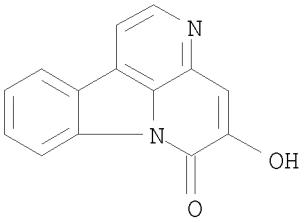


RN 15071-56-4 CAPLUS

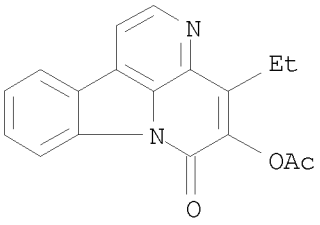
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



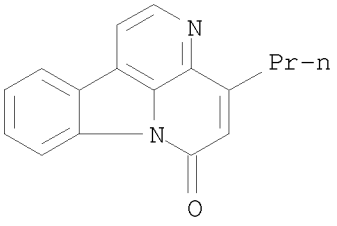
RN 64118-73-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy- (CA INDEX NAME)



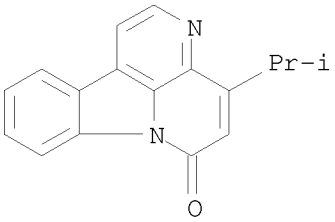
RN 109513-68-0 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(acetyloxy)-4-ethyl- (CA INDEX NAME)



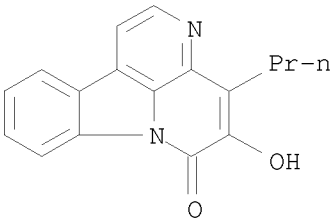
RN 109597-65-1 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-propyl- (CA INDEX NAME)



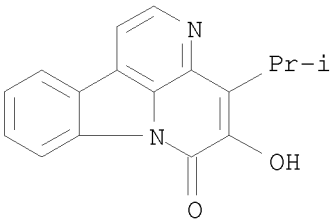
RN 109597-66-2 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-(1-methylethyl)- (CA INDEX NAME)



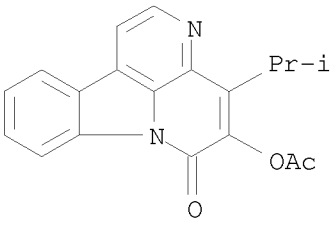
RN 109602-72-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-propyl- (CA INDEX NAME)



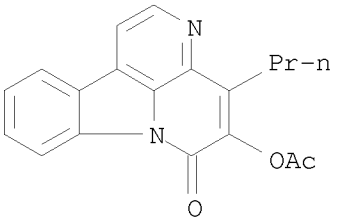
RN 109602-73-5 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-4-(1-methylethyl)- (CA INDEX NAME)



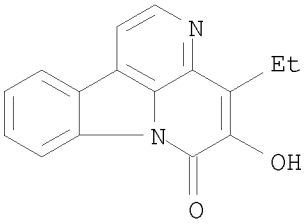
RN 109818-15-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(acetyloxy)-4-(1-methylethyl)- (CA INDEX NAME)



RN 109818-17-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(acetyloxy)-4-propyl- (CA INDEX NAME)

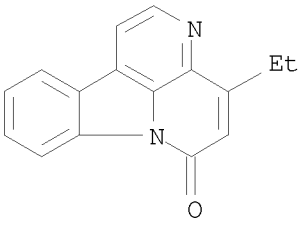


RN 856784-38-8 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-ethyl-5-hydroxy- (CA INDEX NAME)

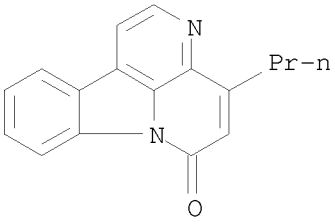


L4 ANSWER 100 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1960:86571 CAPLUS
DOCUMENT NUMBER: 54:86571
ORIGINAL REFERENCE NO.: 54:16473d-h
TITLE: Constitution of four alkaloids from the bark of Hunteria eburnea; eburnamine, isoeburnamine, eburnamenine, and eburnamonine
AUTHOR(S): Bartlett, M. Frederick; Taylor, William I.; Raymond-Hamet
SOURCE: Compt. rend. (1959), 249, 1259-60
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.
AB The alkaloids separated chromatographically were: eburnamenine (I), [α]25D 183° (CHCl3) (picrate m. 196°); eburnamonine (II), 13a-ethyl-2,3,5,6,12,13,13a,13b-octahydro-1H-indolo [3,2,1-de]pyrido [3,2,1-ij] [1,5]naphthyridin-12-one), m. 183°, [α]26D 89° (CHCl3); eburnamine (III), m. 181°, [α]26D -93° (CHCl3) (hydrate m. 105-10°); isoeburnamine (IV), m. 217-20°, [α]26D 111° (CHCl3). III and IV are stereoisomeric alcs., 13a-ethyl-2,3,5,6,12,13,13a,13b-octahydro-1H-indolo[3,2,1-de]pyrido[3,2,1-ij][1,5]naphthyridin-12-ol. III and IV gave I by acid dehydration and gave II by CrO3 oxidation LiAlH4 reduction of II gave III and IV and dihydroeburnamine. II heated with SeO2 yielded V and the dealkylation products, 4-ethyl- and 4-propyl-6-indolo[3,2,1-de][1,5]naphthyridin-6-one. Under Wolff-Kishner conditions, III gave 1,1-diethyl-1,2,3,4,6,7,12,12b-octahydroindolo[2,3-a]quinolizine, m. 106°, [α]D 92°, converted by dehydrogenation and hydrogenation to the racemate, m. 132°, identical with a synthetic sample. Ultraviolet spectra were in agreement with the assigned structures.
IT 5171-49-3P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-ethyl-
109597-65-1P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one,

4-propyl-
RL: PREP (Preparation)
(preparation of)
RN 5171-49-3 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-ethyl- (CA INDEX NAME)



RN 109597-65-1 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-propyl- (CA INDEX NAME)



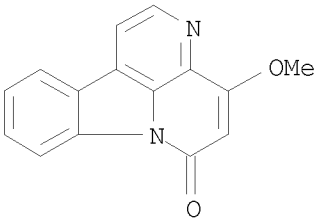
L4 ANSWER 101 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1953:58679 CAPLUS
DOCUMENT NUMBER: 47:58679
ORIGINAL REFERENCE NO.: 47:9983d-i,9984a-d
TITLE: Alkaloids of the Australian Rutaceae: Pentaceras australis. III. Identification of 4-Methylthiocanthin-6-one
AUTHOR(S): Nelson, Eva R.; Price, J. R.
CORPORATE SOURCE: Commonwealth Sci. & Ind. Research Organization, Melbourne
SOURCE: Australian Journal of Scientific Research, Series B: Biological Sciences (1952), A5, 768-81
CODEN: AJSBAM; ISSN: 0365-365X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.
AB cf. C.A. 47, 6956e. The 3rd alkaloid, C15H10OSN2 (I), in the bark of P. australis is shown to be 4-(methylthio)canthin-6-one. I was synthesized and its low basicity is discussed in relation to the basicity of 4-methoxycanthin-6-one. Refluxing 5 g. I with 25 g. KOH in 250 ml. EtOH yields 3 g. 4-hydroxycanthin-6-one (II), C14H8O2N2, m. 288-90°, giving a yellow Na salt from 10% NaOH solution Refluxing II with Ac2O and pyridine 15 min. gives 4-acetoxycanthin-6-one (III), C16H10O3N2, m. 205.5-6.5° (from CHCl3-petr. ether). II with KMnO4 in aqueous alkaline solution gives β-carboline-1-carboxylic acid (IV). Refluxing 1 g. I with 7 g. KOH in 70 ml. AmOH 8 hrs. in a stream of N gives II and MeSH. Refluxing only 15 min., diluting the mixture with ether, extracting with ice water,

and acidifying yields cis-β-methylthio-β-(β-carbolin-1-yl)acrylic acid [β-methylthio-9H-pyrid[3,4-b]-indole-1-acrylic acid], C15H12O2SN2, m. 240° or 251-2° depending on the rate of heating. Me ester (V), benzene-petr. ether, 181-2°. II was synthesized from the acid chloride of IV by shaking, then refluxing, with the Mg-ethoxy derivative of malonic ester (prepared according to Walker and Hauser, C.A. 40, 5712.7), acidifying with AcOH, refluxing the pale green precipitate 4 hrs. with 7.5 ml. each of concentrated HCl and EtOH, dissolving the yellow precipitate in dilute NaOH, and precipitating II with AcOH. Keeping III 3 days in dioxane with CH2N2 ppts. a red compound, C15H12O3N2 (VI), m. about 240° (decomposition), and the solution yields 4-methoxycanthin-6-one (VII), C15H10O2N2, m. 220-20.5° (from C6H6) [picrate, C15H10O2N2.C6H3O7N3, m. 221.5-2.5° (from EtOH); methiodide, C16H13O2N2I.H2O, m. 218° (decomposition) (from water)]. Refluxing VII 3 hrs. with an equal volume of 46% HBr and AcOH gives II. Boiling 250 mg. VII 7 min. with 20 ml. 10% KOH in AmOH yields an acid, which with HCl-MeOH gives the Me ester of β-amoxy-β-(β-carbolin-1-yl)-acrylic acid, C20H22O3N2, m. 145-6°. Boiling I 24 hrs. in Me2CO with KMnO4 leaves most of it unchanged and gives only very little IV. I with Zn dust and HCl yields MeSH and dihydrocanthine hydrate. If I is refluxed 3 hrs. in C6H6 with fresh Raney Ni 4,5-dihydrocanthin-6-one (VIII) seps., but with aged Ra Ni canthin-6-one is formed. Refluxing I 4 hrs. with Ra-Ni in MeOH yields the Me ester, in EtOH the Et ester, of β-(β-carbolin-1-yl)propionic acid (IX) seps. I let stand in AcOH with H2O2 9 days at room temperature gives the sulfone N-oxide, C15H10O4SN2, cream-colored, m. 201° (from CHCl3) orange, m. 205° (from AcOH), which resists reduction by SO2, but gives VIII on boiling with Zn in AcOH. Heating I 2 hrs. on a water bath with Chloramine-T in AcOH gives 5-chloro-4-(methylthio)canthin-6-one, C15H9-OSN2Cl, m. 252-3°. Refluxing II 3 hrs. with POCl3 yields 4-chlorocanthin-6-one (X), C14H7ON2Cl, m. 201-2°. After heating II with PCl5 and POCl3 3 hrs. at 130-140°, pouring the cooled mixture into ice water, and extracting it which is extracted with CHCl3, the aqueous solution contains 4-hydroxy-5-chlorocanthin-6-one, decompose up to 360°, forming an Ac derivative, C16H9O3N2Cl, m. 225-6°; the CHCl3 contains 4,5-dichlorocanthin-6-one, C14H6ON2Cl2, m. 226-7°, which yields IX on refluxing 4 hrs. with Ra Ni in MeOH. I was obtained by heating X with MeSK in a sealed tube 7 hrs. at 75-80° and chromatographing the reaction mixture The ultraviolet spectra of I, III, V, and VII are recorded. 18 references.

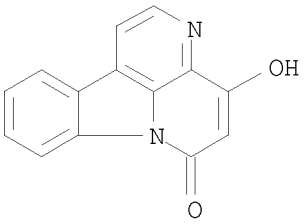
IT 5023-08-5, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-methoxy-
106941-27-9, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-hydroxy-
(and derivs.)

RN 5023-08-5 CAPLUS

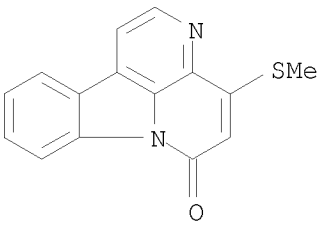
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-methoxy- (CA INDEX NAME)



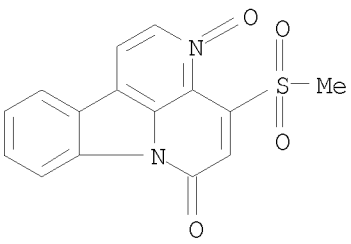
RN 106941-27-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-hydroxy- (CA INDEX NAME)



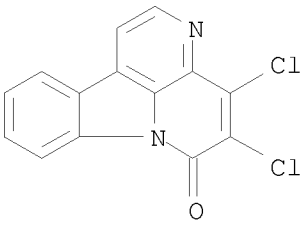
IT 500299-14-9P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-(methylthio)- 855612-12-3P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-(methylsulfonyl)-, 3-oxide 855612-13-4P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dichloro- 855612-14-5P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-chloro-4-(methylthio)- 855612-15-6P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-chloro-4-hydroxy-, acetate (ester) 855612-16-7P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-chloro-4-hydroxy- 855612-17-8P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-chloro-
RL: PREP (Preparation)
(preparation of)
RN 500299-14-9 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-(methylthio)- (CA INDEX NAME)



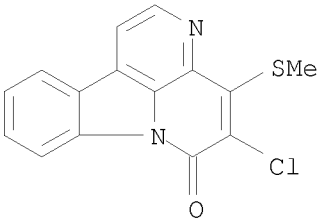
RN 855612-12-3 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-(methylsulfonyl)-, 3-oxide (CA INDEX NAME)



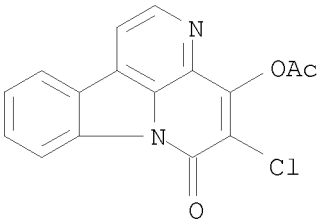
RN 855612-13-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4,5-dichloro- (CA INDEX NAME)



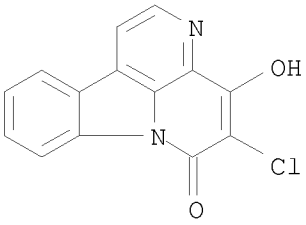
RN 855612-14-5 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-chloro-4-(methylthio)- (CA INDEX NAME)



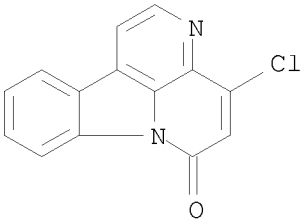
RN 855612-15-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-(acetyloxy)-5-chloro- (CA INDEX NAME)



RN 855612-16-7 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-chloro-4-hydroxy- (CA INDEX NAME)

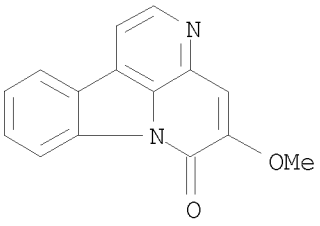


RN 855612-17-8 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 4-chloro- (CA INDEX NAME)

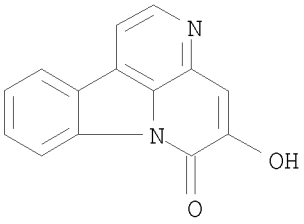


L4 ANSWER 102 OF 102 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1953:41309 CAPLUS
DOCUMENT NUMBER: 47:41309
ORIGINAL REFERENCE NO.: 47:6956e-i,6957a-b
TITLE: Alkaloids of the Australian Rutaceae: Pentaceras Australis Hook. F. II. Identification of 5-methoxycanthinone
AUTHOR(S): Haynes, H. F.; Nelson, Eva R.; Price, J. R.
CORPORATE SOURCE: Commonwealth Sci. & Ind. Research Organization, Melbourne
SOURCE: Australian Journal of Scientific Research, Series B: Biological Sciences (1952), A5, 563-9
CODEN: AJSBAM; ISSN: 0365-365X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.
AB cf. C.A. 47, 3858f. The 2nd alkaloid, C15H10O2N2, of P. australis is shown to be 5-methoxycanthin-6-one (I). I contains 1 MeO, forms a HCl salt, m. 206-7°, picrate, C15H10O2N2.C6H3O7N3, m. 242-4° (from MeOH), and methiodide (II), C16H13O2N2I, prepared in CHCl3 and crystallized from water, m. 308-9°. Oxidation of I with KMnO4 in Me2CO at room temperature during 18 hrs. gives β-carboline-1-carboxylic acid, m. 239.5° (decomposition). Boiling I with alc. KOH, followed by acidification, gives cis-2-methoxy-3-(1-β-carbolinyl)acrylic acid (III), C15H12O3N2.2H2O, m. 235° (decomposition), which was not isomerized to the trans form by heating in alkaline solution I is regenerated from III by treatment with HCl-MeOH, by boiling with AcOH 3 hrs., or by heating an aqueous solution to the Na salt of III. Refluxing I with 15% HBr in 66% aqueous AcOH 24 hrs. gives 5-hydroxycanthinone (IV), C14H8O2N2, m. 259-61°, gives a yellow-green color with FeCl3 and when refluxed with Ac2O 2 hrs., is converted to 5-acetoxycanthinone (V), C14H7ON2-(OAc), m. 231.5-2°, from which I is regenerated after standing 5 days in dioxane with CH2N2 in moist ether. Refluxing IV with o-C6H4(NH2)2 in AcOH 0.5 hr. yields a 2-hydroxyquinoxaline derivative, C20H14ON4, m. 343-5° (decomposition), to which the structure A is assigned. I is recovered unchanged after attempted hydrogenation in the presence of Raney Ni, but boiling in AcOH with granulated Zn 45 min. gives 4,5-dihydrocanthinone and, if the reaction time is short, canthinone. Heating with Raney alloy-NaOH on the water bath 3-5 hrs. converted I to β-carbolyl-propionic acid, and IV to 2-hydroxy-3-(1-β-carbolyl)acrylic acid, C14H12O3N2.H2O, m. 200-0.5° (decomposition); Me ester, benzene, C15H14O3N2, m. 114-15° (from C6H6). Heating II in 10% aqueous NaOH gives C13H14ON2, m. 190-3° (decomposition), for which structure B is proposed. Attempted synthesis of IV failed. Ultraviolet spectra of I and IV are given. 5 references.
IT 15071-56-4, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (and derivs.)

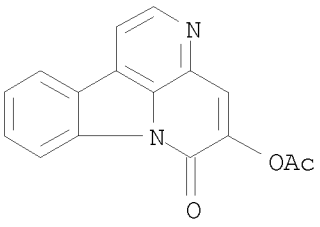
RN 15071-56-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-methoxy- (CA INDEX NAME)



IT 64118-73-6P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy- 99964-80-4P, 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy-, acetate (ester)
RL: PREP (Preparation)
(preparation of)
RN 64118-73-6 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-hydroxy- (CA INDEX NAME)



RN 99964-80-4 CAPLUS
CN 6H-Indolo[3,2,1-de][1,5]naphthyridin-6-one, 5-(acetyloxy)- (CA INDEX NAME)



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L3 69 S L1 FULL

FILE 'CAPLUS' ENTERED AT 15:07:56 ON 06 APR 2009

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L1                STR
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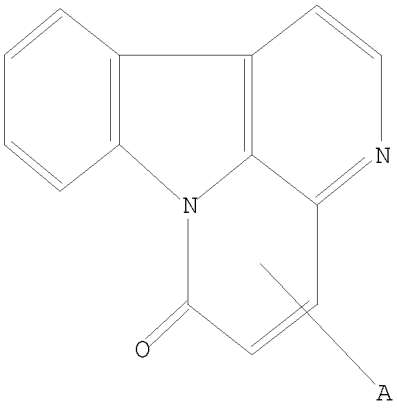

Structure attributes must be viewed using STN Express query preparation.

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